AD9907175A2

Service Manual

Stereo Control / Power Amplifier

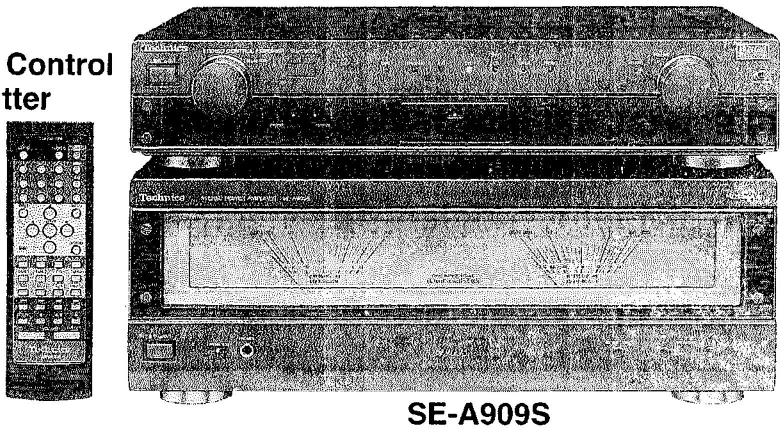
SU-A909

Please file and use this manual together with the service manuals for Model No. SU-C909U, Order No. AD9907176C2 and Model No. SE-A909S, Order No. AD9907177C2.

Colour
(K)..........Black Type

Areas
(E)..........Europe and Russia.
(EB)........Great Britain.
(EG)........Germany, France and Italy.

System: SU-A909
Control Amplifier...........SU-C909U
Power Amplifier............SE-A909S



⚠ **WARNING**
This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1. Notes

- The SU-A909 consists of a Control Amplifier "SU-C909U" and a Power Amplifier "SE-A909S" contained in one and the same packing case.
  So the new parts are those packed in and named below.
  For information of others than those packed in, refer to both the SU-C909U Service Manual and the SE-A909S Service Manual.
- All parts are supplied by MESA.

2. Replacement Parts List

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
P1	RPG4514	PACKING CASE	1	(E)
P1	RPG4515	PACKING CASE	1	(EB,EG)
P2	RPQ0978	PAD	1	
P3	RPQ0977	PAD	1	

3. Packaging

Printed in Japan
F990704500HH/YI

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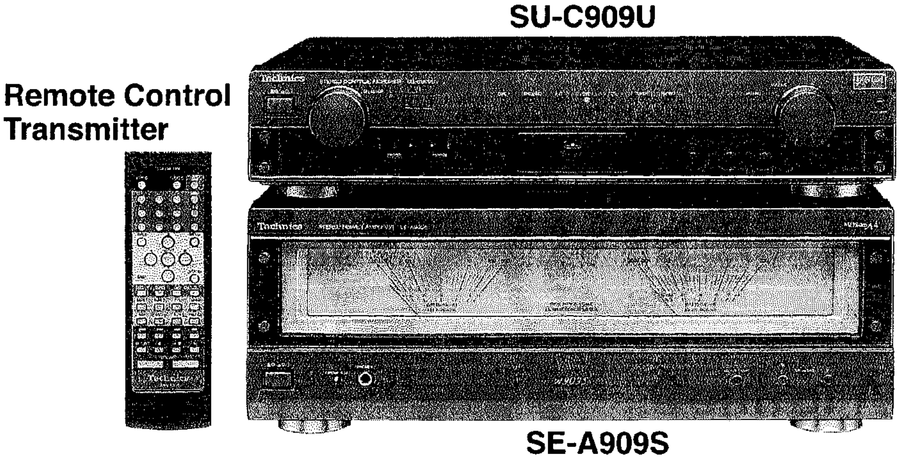
AD9907176C2

Service Manual

Control Amplifier

SU-C909U

Colour
(K)..........Black Type
Area
(E)..........Europe and Russia.


SU-C909U
Remote Control Transmitter
SE-A909S

SPECIFICATIONS

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

System: SU-A909

Control Amplifier	**SU-C909U**
Power Amplifier	SE-A909S

Specifications (DIN 45 500)

Input sensitivity/Impedance:	
PHONO MM;	2.5 mV/47 kΩ
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD;	200 mV/22 kΩ
Total harmonic distortion (VGCA ON) (Vol. MAX, 20 Hz – 20 kHz):	
PHONO MM;	0.01 %
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD;	0.01 %
S/N (VGCA ON):	
PHONO MM;	75 dB (77 dB, IHF '66)
TUNER, CD, DVD, AUX, TAPE 1, TAPE 2/MD;	103 dB (100 dB, IHF '66) 114 dB (IHF A S=2 V rated output)
Frequency response (VGCA ON):	
PHONO MM;	RIAA standard curve ±1 dB (30 Hz – 15 kHz)
TUNER, CD, DVD-6CH, AUX, TAPE 1, TAPE 2/MD;	3 Hz – 100 kHz (+0 dB, –3 dB) +0 dB, –0.3 dB (20 Hz – 20 kHz)

Phono maximum input voltage (1 kHz, RMS):	
MM;	90 mV (IHF '66)
Tone controls:	
BASS;	+10 dB, –10 dB (50 Hz)
TREBLE;	+10 dB, –10 dB (20 kHz)
Muting:	–∞ dB
Output voltage:	
TAPE 1, TAPE 2 REC OUT;	200 mV
PRE OUT;	1 V

■ GENERAL

Dimensions (W × H × D):	430 × 91.5 × 300 mm
Weight:	2.85 kg

Note:

- Specifications are subject to change without notice.
  Weight and dimensions are approximate.

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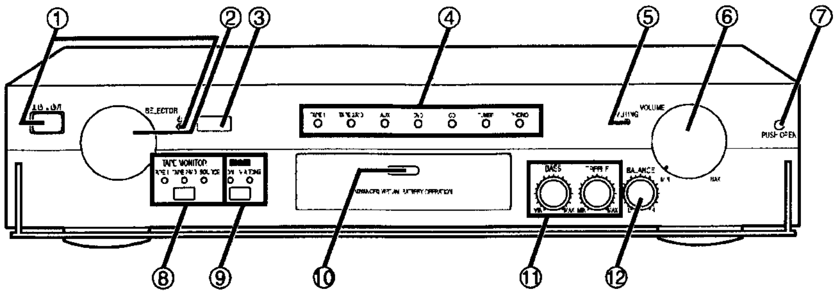
1. Note

Refer to the servise manual for Model No. SE-A909S (ORDER No. AD9907177C2) for information on Accessories, Connections, Operations and Packaging.

2. Location of Controls



Main units

No. Name

① **Unit on/off button (■ ⏻ ▬ ⏻/I) and remote standby indicator (⏻)**

Use this button to turn the unit on and off.

■ (off): The unit is in standby mode.

▬ (on): The unit is on. The unit can be turned on and off with the remote control. When the unit is turned off with the remote control it is in remote standby and the indicator lights.

The unit is still using a small amount of power in the standby and remote standby conditions. Standby uses less power.

Note

The control amplifier switches between ON and the standby mode only if the power amplifier [■ ⏻ ▬ ⏻/I] switch is in the "▬ ⏻/I" position.

② **Input selector (SELECTOR)**

③ **Remote control signal sensor**

④ **Input indicator**

⑤ **Muting indicator (MUTING)**

⑥ **Volume control (VOLUME)**

No. Name

⑦ **Panel button (PUSH OPEN)**

Press to open the clear panel. Close by hand.

⑧ **Tape monitor button/indicators (TAPE MONITOR)**

⑨ **VGCA button/indicators (VGCA)**

⑩ **"ADVANCED VIRTUAL BATTERY OPERATION" indicator**

This will illuminate to indicate that the advanced virtual battery (a circuit which removes the noise contained in the power supply while playing a sound input source) is functioning.

⑪ **Tone contols (BASS, TREBLE)**

⑫ **Balance control (BALANCE)**

3. To Supply Power Source

This unit SU-C909U is designed to operate on power supplied from the Power Amplifier SE-A909S.

When operating the unit SU-C909U alone for testing and servicing, without having power supplied from the Power Amplifier SE-A909S, use the following method.

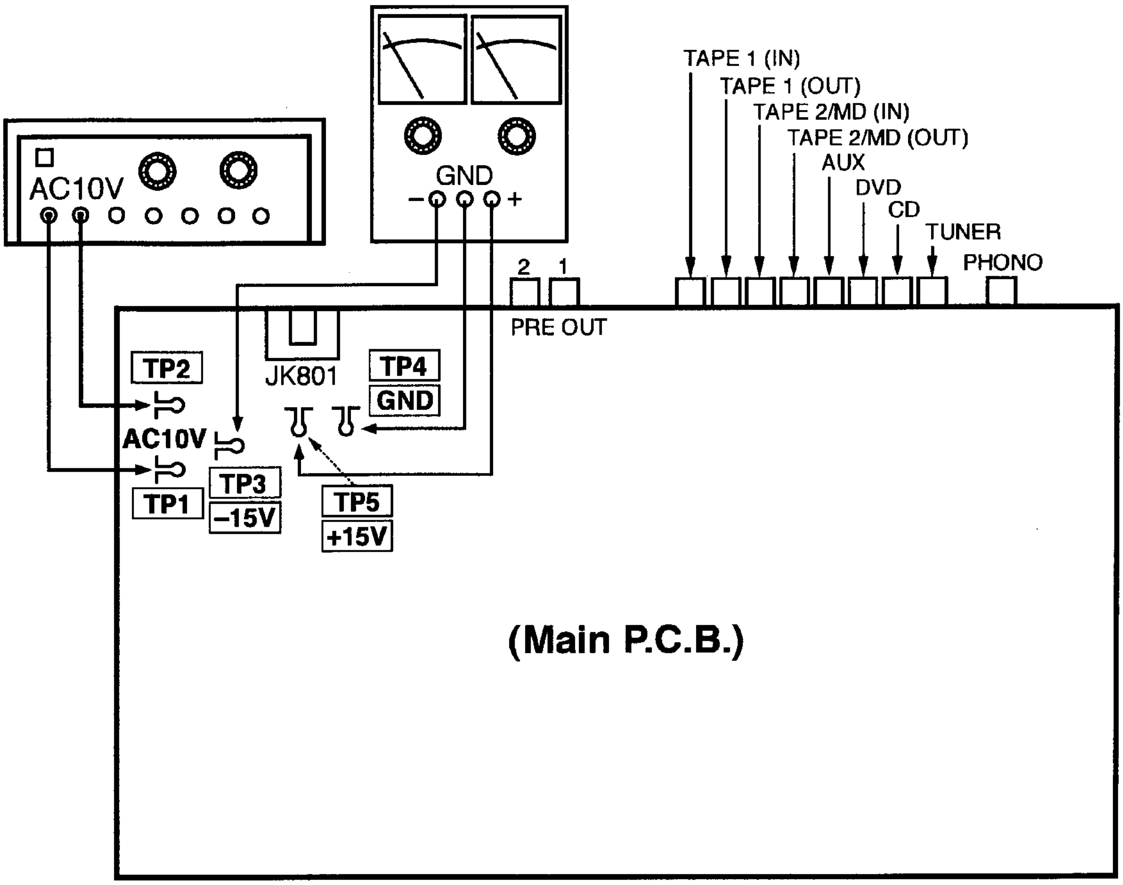
3.1. Power Supply to Main Circuit

1. **Apply 10 V AC power to the section between the point TP1 and the point TP2. Shown in Fig.1**
2. **Connect the DC +12 V to +15 V (more than 0.1 A) to the point TP5, and the GND terminal to the point TP4 using the DC power supply. Shown in Fig.1**
3. **Connect the DC -12 V to -15 V (more than 0.1 A) to the point TP3, and the GND terminal to the point TP4 using the DC power supply. Shown in Fig.1**

3.2. Operation Check

1. **Input a signal (1 kHz, 100 mV) to the each line-in terminal.**
2. **Connect the oscilloscope or the speaker with the built-in amplifier to the PRE OUT terminals and check if the signals are outputting from this unit.**

Fig.1

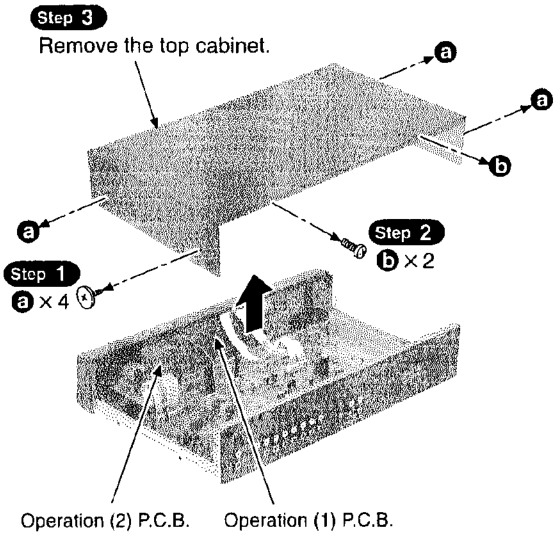

AC10V
GND
−
+
TAPE 1 (IN)
TAPE 1 (OUT)
TAPE 2/MD (IN)
TAPE 2/MD (OUT)
AUX
DVD
CD
TUNER
PHONO
2
1
PRE OUT
JK801
TP2
TP4
GND
AC10V
TP3
−15V
TP1
TP5
+15V
(Main P.C.B.)

4. Operation Checks and Component Replacement Procedures

NOTE 1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.

2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

1. Checking for the operation (1) P.C.B., operation (2) P.C.B. and main P.C.B.

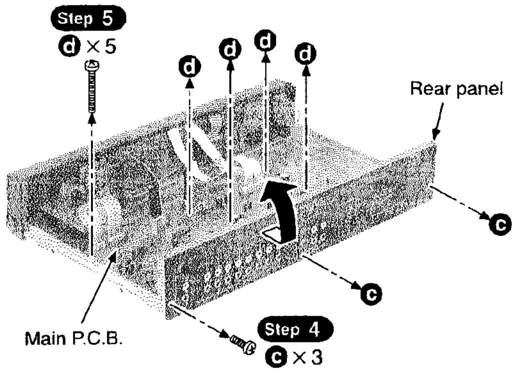

Step 3
Remove the top cabinet.

Step 2
b × 2

Step 1
a × 4

a
a
b
a
Operation (2) P.C.B.
Operation (1) P.C.B.

- **Check the operation (1) P.C.B. and operation (2) P.C.B. as shown above**

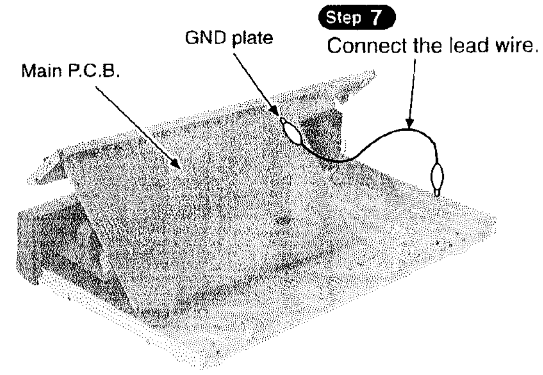

Step 5
d × 5

Step 4
c × 3

d
d
d
d
Rear panel
c
c
Main P.C.B.

Step 6
Remove the main P.C.B. and rear panel in the direction of arrow.

- **Check the main P.C.B. as shown below.**

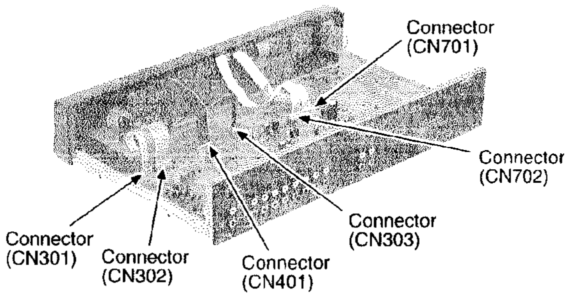

Step 7
Connect the lead wire.

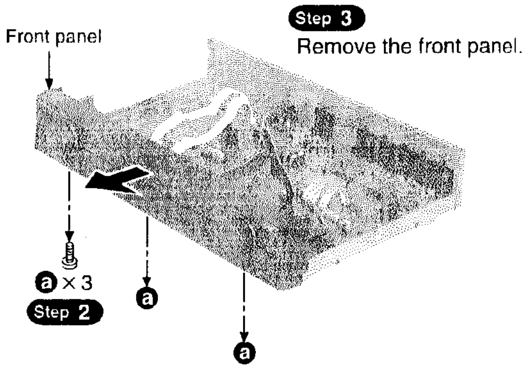
GND plate
Main P.C.B.

To remove each P.C.B.

- Follow the **Step 1** ~ **Step 3** of the item 1.

Step 1
Remove the 6 connectors.


Connector (CN701)
Connector (CN702)
Connector (CN303)
Connector (CN301)
Connector (CN302)
Connector (CN401)

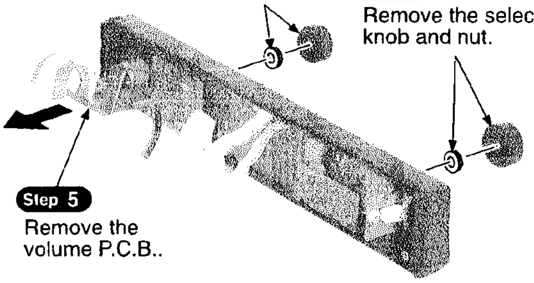

Step 3
Remove the front panel.

Step 2
a × 3

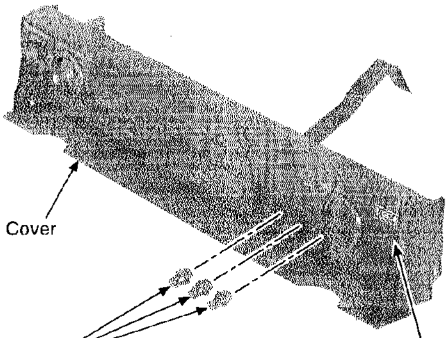
Front panel
a
a

Step 4
Remove the volume knob and nut.

Step 6
Remove the selector knob and nut.



Step 5
Remove the volume P.C.B..



Step 8
Pull out the balance knob, treble knob and bass knob.

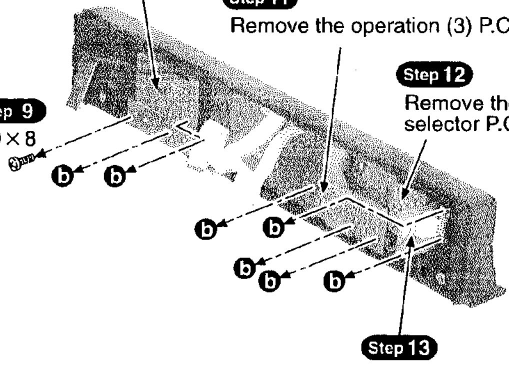
Step 7
Push the open button, and then open the cover.

Step 10
Remove the operation (2) P.C.B..

Step 11
Remove the operation (3) P.C.B..

Step 12
Remove the selector P.C.B..

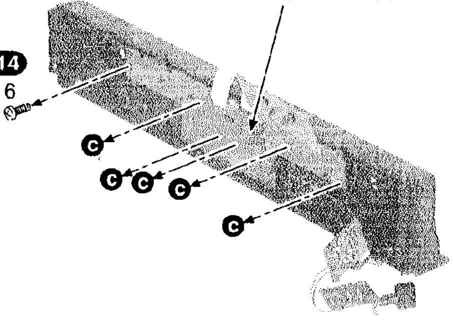
Step 9
ⓑ × 8



Step 13
Remove the power switch P.C.B..

Step 15
Remove the operation (1) P.C.B..

Step 14
ⓒ × 6



5. Type Illustration of ICs, Transistors and Diodes

6. Schematic Diagram

6.1. Schematic Diagram Notes

- **This schematic diagram may be modified at any time with the development of new technology.**

Notes:

S801:

VGCA switch (VGCA)

S802:

Tape monitor switch (TAPE MONITOR)

S804:

Input select switch (SELECTOR)

S805:

Unit on/off switch (■ ⏻ ▬ ⏻/I)

VR301:

Volume control VR (VOLUME)

VR311:

Output voltage adjustment VR (L ch)

VR312:

Output voltage adjustment VR (R ch)

VR401:

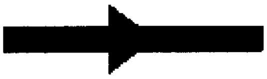
Balance control VR (BALANCE)

VR402:

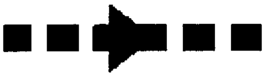
Tone control VR (BASS)

VR403:
Tone control VR (TREBLE)

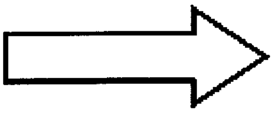
- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
  No mark : Power ON
- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
  When replacing any of components, be sure to use only manufacturers specified parts shown in the parts list.
- Caution!
  IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
  Cover the parts boxes made of plastics with aluminum foil.
  Ground the soldering iron.
  Put a conductive mat on the work table.
  Do not touch the legs of IC or LSI with the fingers directly.
- Voltage and signal line



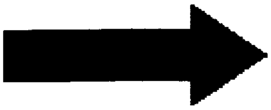
: Positive voltage line



: Negative voltage line



: Phono signal line



: Tape rec signal line

6.2. Schematic Diagram

7. Printed Circuit Board Diagram

8. Block Diagram

9. Wiring Connection Diagram

10. Measurements and Adjustments

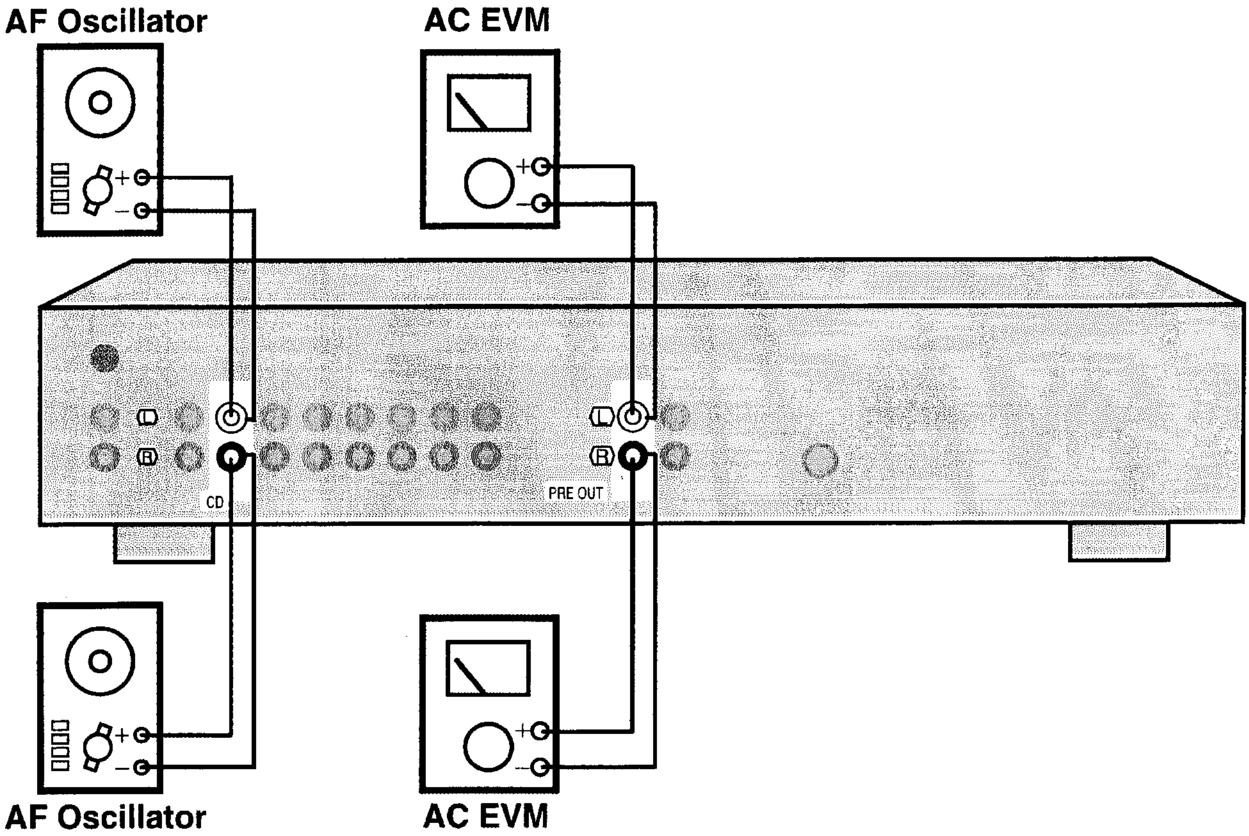
10.1. Measurement instruments and Special tools

- AC electric voltmeter (AC EVM)
- AF oscillator

10.2. Output Voltage Adjustment

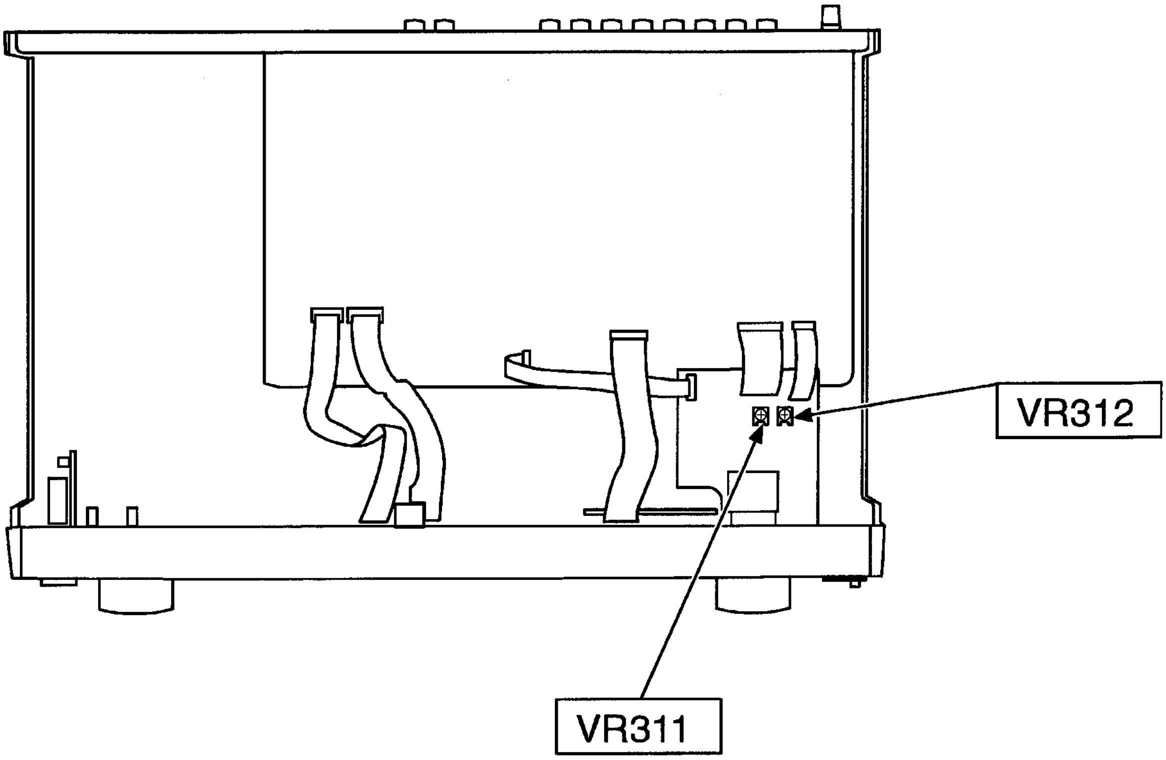
1. Turn on the power.
2. Select the input source to CD.
3. Connect the measuring instrument as shown in Fig.2
4. Apply 1 kHz, 200 mV signal to CD terminal.
5. Adjust the VOLUME to maximum.
6. Adjust VR311 (L ch) and VR312 (R ch) so that the output voltage to AC 1.00 V±0.2 dB. Shown in Fig.3

Fig.2


AF Oscillator
AC EVM
+
−
+
−
L
R
CD
L
R
PRE OUT
+
−
+
−
AF Oscillator
AC EVM

- Adjustment Point

Fig.3


VR312
VR311

11. Terminal Function of ICs

11.1. IC701 (M38503M2404F) : Micro Computer

Pin No.	Name	I/O	Function
1	VCC	I	Power supply (+5 V) terminal
2	VREF	I	Reference voltage input
3	AGND	-	GND terminal
4	CS	I	Chip select signal input
5	NC	-	Not used, open
6	REMCON	I	Remote control signal input
7	BACKUP	I	Power failure detect signal input
8	NC	-	Not used, open
9	SELDATA	O	Data signal output for input select IC (IC201 and IC202)
10	SELCLK	O	Clock signal output for input select IC (IC201 and IC202)
11	SELSTB	O	Strobe signal output for input select IC (IC201 and IC202)
12	POWERSW	I	Selector switch (S804) detect signal input
13	LEDCLK	O	Clock signal output for LED drive IC
14	LEDDATA	O	Data signal output for LED drive IC
15	CNVSS	-	Connected to GND
16	VRDOWN	O	Motor drive signal output (Volume down)
17	VRUP	O	Motor drive signal output (Volume up)
18	RESET	I	System reset signal input
19	XIN	I	Connected to the ceramic oscillator (8 MHz)
20	XOUT	O	Connected to the ceramic oscillator (8 MHz)
21	GND	-	GND terminal
22	BATELED	-	Battery level (empty) LED (D809) drive signal output (Not used, open)
23	BATFLED	-	Battery level (full) LED (D809) drive signal output (Not used, open)
24	VIALED	O	VIA LED drive signal output
25	VGALED	O	VGCA LED drive signal output
26	STABYLED	O	Stand by LED drive signal output
27	FRNTOUT	O	Front output control signal output
28	CSWSOUT	-	Center/S.woofer/Surround output control signal output (Not used, open)

Pin No.	Name	I/O	Function
			used, open)
29	PWRRLY	O	Power control signal output
30	CHRGRLY	-	Battery charge relay control signal output (Not used, open)
31	BATRLY	-	Battery drive relay control signal output (Not used, open)
32	VGARLY	O	VGCA mode relay control signal output
33 | 36	NC	-	Not used, open
37	SELPH	-	Not used, open
38	BATLVL2	-	Battery voltage detection (2) signal input (Not used, open)
39	NC	-	Not used, open
40	RSWAD	I	Power switch (S805) detect signal input
41	KEYAD	I	Tape monitor and VGCA switch input
42	BATLVL1	-	Battery voltage detection (1) signal input (Not used, open)

12. Replacement Parts List

Notes:

- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
  When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.
- The marking (RTL) indicates that Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
1	RKM0078-1K	TOP CABINET	1	
2	RHD30035-K1	SCREW	4	
3	XTBS3+8JFZ1	SCREW	2	
4	RGW0229-K	KNOB,SELECTOR	1	
5	RGW0230-K	KNOB,VOLUME	1	
6	RKA0053-A	FOOT	4	
6-1	RMG0270-K	RUBBER	4	
7	RDG0449	GEAR	2	
8	RGB0031-A	TECHNICS BADGE	1	
9	RGB0112-N	VGCA BADGE	1	
10	RGG0168C-K	PANEL	1	
11	RGK0747-S	RING ORNAMENT	2	
12	RGK1111-K	NUT	4	
13	RGK1163-K	DISPLAY 1	1	
14	RGK1164A-K1	DISPLAY 2	1	
15	RGL0453-Q	PANEL LIGHT 1	2	
16	RGL0454-Q	PANEL LIGHT 2	2	
17	RGP0740A-K	SUB GRILL	1	
18	RGP0743-K	GRILL	1	
19	RGU0890-1K	BUTTON,POWER	1	
20	RGU1712-K	BUTTON,OPEN	1	
21	RGU1774-S	BUTTON,VGCA	1	
22	RGW0205-S	KNOB,	3	
23	RHD26033	SCREW	4	
24	RHD26034	SCREW	3	
25	RHN90001	NUT	2	
26	RKF0593-Q	DOOR	1	
27	RKG0009	MAGNET	1	
28	RKW0273A-K	FILTER	1	
29	RME0284	SPRING	1	
30	RMR1202-K	ARM(L)	1	
31	RMR1203-K	ARM(R)	1	
32	RMR1204-K	MAGNET HOLDER	1	
33	RMR1205-K	DAMPER HOLDER	2	
34	RMR1206-K	DAMPER(R)	1	
35	RMR1207-K	DAMPER(L)	1	
36	XTBS26+8J	SCREW	20	
37	XTS2+4GFZ	SCREW	4	
38	SNE2123	SCREW	1	
39	XTBS3+8JFZ1	SCREW	10	
40	XTB3+20JFZ	SCREW	5	
41	XTB3+6JFZ	SCREW	3	
C101,02	ECBT1H221KB5	50V 220P	2	
C103,04	ECA1HPXS4R7B	50V 4.7U	2	
C107,08	RCE1AKA330BG	10V 33U	2	
C113,14	ECQB1H682JF3	50V 6800P	2	
C115,16	ECQB1H223JF3	50V 0.022U	2	
C117,18	ECEA1VKA4R7B	35V 4.7U	2	
C119,20	ECQB1H472JF3	50V 4700P	2	
C121,22	ECKR1H103ZF5	50V 0.01U	2	
C123,24	ECBT1H102KB5	50V 1000P	2	
C201,02	ECBT1H101KB5	50V 100P	2	
C203-06	ECCR1H101K5	50V 100P	4	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
C211,12	ECBT1H101KB5	50V 100P	2	
C215	ECBT1H101KB5	50V 100P	1	
C217,18	ECBT1C103NS5	16V 0.01U	2	
C219,20	ECA1HPXS4R7B	50V 4.7U	2	
C221	ECBT1H101KB5	50V 100P	1	
C223,24	ECBT1C103NS5	16V 0.01U	2	
C225,26	ECA1HPXS4R7B	50V 4.7U	2	
C231	ECBT1E103ZF	25V 0.01U	1	
C251-58	ECBT1H101KB5	50V 100P	8	
C301,02	ECBT1H181KB5	50V 180P	2	
C303,04	ECBT1E103ZF	25V 0.01U	2	
C305,06	ECA1EPXS100B	25V 10U	2	
C351,52	ECA1EPXS100B	25V 10U	2	
C353,54	ECCR1H101K5	50V 100P	2	
C355,56	ECA1APXS221	10V 220U	2	
C357,58	ECBT1H820KB5	50V 82P	2	
C359,60	ECBT1H390J5	50V 39P	2	
C361,62	ECA1HPXS3R3	50V 3.3U	2	
C363,64	ECBT1E103ZF	25V 0.01U	2	
C367,68	ECA1EPXS220B	25V 22U	2	
C391,92	ECEA0JKS101	6.3V 100U	2	
C393,94	ECFR1E104ZF5	25V 0.1U	2	
C401,02	ECEA1HKS010	50V 1U	2	
C403-06	ECBT1H101KB5	50V 100P	4	
C407,08	ECBT1H560J5	50V 56P	2	
C409,10	RCE1CKA470BG	16V 47U	2	
C411,12	ECBT1E103ZF	25V 0.01U	2	
C415,16	ECBT1C222KR5	16V 2200P	2	
C417,18	ECBT0J153MS5	6.3V 0.015U	2	
C419,20	ECBT1C332KR5	16V 3300P	2	
C421,22	ECQV1H823JZ	50V 0.082U	2	
C423,24	ECBT0J153MS5	6.3V 0.015U	2	
C425,26	ECBT1H121KB5	50V 120P	2	
C427,28	ECEA1HKS010	50V 1U	2	
C513,14	ECEA1HPS010	50V 1U	2	
C515,16	ECCR1H101J5	50V 100P	2	
C519,20	ECA1EPXS100B	25V 10U	2	
C521,22	ECA1CPXS470B	16V 47U	2	
C523,24	ECCR1H331J5	50V 330P	2	
C601	ECEA1HKS010	50V 1U	1	
C607,08	ECA1EPXS470B	25V 47U	2	⚠
C651	ECA1EM222	25V 2200U	1	⚠
C655	RCE1CKA470BG	16V 47U	1	
C656	ECQV1H104JM3	50V 0.1U	1	
C658	ECBT1C103NS5	16V 0.01U	1	
C701,02	ECA0JM102	6.3V 1000U	2	
C703	RCE1HKAR47BG	50V 0.47U	1	
C704	ECEA1HKS2R2	50V 2.2U	1	
C705,06	ECBT1C103NS5	16V 0.01U	2	
C707,08	RCE1HKAR22BG	50V 0.22U	2	
C709	ECBT1C103NS5	16V 0.01U	1	
C801	ECEA0JKS101	6.3V 100U	1	
C802	ECBT1E103ZF	25V 0.01U	1	
C803	ECBT1H104ZF5	50V 0.1U	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
C804,05	ECBT1H101KB5	50V 100P	2	
C806	ECBT1H104ZF5	50V 0.1U	1	
CN301	RJS1A6604	CONNECTOR(4P)	1	
CN302	RJS1A6607T1	CONNECTOR(7P)	1	
CN303	RJS1A6604	CONNECTOR(4P)	1	
CN401	RJS1A6607T1	CONNECTOR(7P)	1	
CN701	RJS7T4ZA	CONNECTOR(7P)	1	
CN702	RJS8T4ZA	CONNECTOR(8P)	1	
D201,02	MA165	DIODE	2	
D501	MA165	DIODE	1	
D521	MA165	DIODE	1	
D601	MA165	DIODE	1	
D607	MA165	DIODE	1	
D651-54	RL1N4003N02	DIODE	4	⚠
D655,56	MA167	DIODE	2	⚠
D658	MA4056M	DIODE	1	⚠
D701	1SS291TA	DIODE	1	
D702	MA165	DIODE	1	
D704	1SS291TA	DIODE	1	
D705-07	MA165	DIODE	3	
D709,10	MA165	DIODE	2	
D712	MA165	DIODE	1	
D801-04	SLR325VCT31	LED	4	
D806-08	SLR325VCT31	LED	3	
D811	SLR325DCT31	LED	1	
D812,13	SLR325VCT31	LED	2	
D814,15	SLR325DCT31	LED	2	
D816-18	SLR325VCT31	LED	3	
IC101	AN6558F	IC	1	
IC201	TC9163N	IC	1	
IC202	TC9164N	IC	1	
IC311	UPC4570C	IC	1	
IC351	UPC4570C	IC	1	
IC391	BA6218	IC	1	
IC401	NJM4580EDTE1	IC	1	
IC511	UPC4570C	IC	1	
IC601	M5F78M05L	IC	1	⚠
IC701	M38503M2404F	IC	1	
IC801	BU2090AFE2	IC	1	
JK201	SJF3069-11N	JACK,PHONO	1	
JK202-05	SJF3069N	JACK,IN/OUT	4	
JK501	SJF3069N	JACK,PRE/OUT	1	
JK801	RJS1D0706	JACK(7P)	1	
L391,92	ELEXT1R0KA9	COIL	2	
L601-07	ELEXT1R0KA9	COIL	7	
L701	ELEXT101KA9	COIL	1	
L801	ELEXT101KA9	COIL	1	
L802	ELEXT100KA9	COIL	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
P1	RPG4512	PACKING CASE	1	
P2	RPN1206	PAD	1	
P3	SPP756	PROTECTION COVER	1	
PCB1	REP2873A-M	MAIN PCB	1	(RTL)
PCB2	REP2841D-S	PANEL PCB	1	(RTL)
Q201	DTC124EST	TRANSISTOR	1	
Q202	DTA124ESTP	TRANSISTOR	1	
Q203	DTC124EST	TRANSISTOR	1	
Q204	DTA124ESTP	TRANSISTOR	1	
Q501	DTA124ESTP	TRANSISTOR	1	
Q502	DTC124EST	TRANSISTOR	1	
Q521	DTC124EST	TRANSISTOR	1	
Q522	DTA124ESTP	TRANSISTOR	1	
Q601,02	DTA124ESTP	TRANSISTOR	2	⚠
Q603	DTC144ESTP	TRANSISTOR	1	⚠
Q701	DTC114ESTP	TRANSISTOR	1	
Q702	DTC114YSTP	TRANSISTOR	1	
Q710	DTC114YSTP	TRANSISTOR	1	
R101,02	ERDS2FJ152	1/4W 1.5K	2	
R103,04	ERDS2FJ224	1/4W 220K	2	
R105,06	ERDS2FJ563	1/4W 56K	2	
R117,18	ERDS2FJ181	1/4W 180	2	
R123,24	ERDS2FJ680	1/4W 68	2	
R125,26	ERDS2FJ123	1/4W 12K	2	
R127,28	ERDS2FJ184	1/4W 180K	2	
R129,30	ERDS2FJ563	1/4W 56K	2	
R131,32	ERDS2FJ102	1/4W 1K	2	
R201-06	ERDS2FJ102	1/4W 1K	6	
R211,12	ERDS2FJ102	1/4W 1K	2	
R215-17	ERDS2FJ103	1/4W 10K	3	
R219-21	ERDS2FJ103	1/4W 10K	3	
R222,23	ERDS2FJ102	1/4W 1K	2	
R224	ERDS2FJ472	1/4W 4.7K	1	
R227	ERDS2FJ472	1/4W 4.7K	1	
R251-58	ERDS2FJ102	1/4W 1K	8	
R301,02	ERDS2FJ104	1/4W 100K	2	
R315,16	ERDS2FJ272	1/4W 2.7K	2	
R351,52	ERDS2FJ102	1/4W 1K	2	
R353,54	ERDS2FJ333	1/4W 33K	2	
R355,56	ERDS2FJ272	1/4W 2.7K	2	
R357,58	ERDS2FJ224	1/4W 220K	2	
R361,62	ERDS2FJ183	1/4W 18K	2	
R363,64	ERDS2FJ103	1/4W 10K	2	
R365,66	ERDS2FJ102	1/4W 1K	2	
R391	ERDS1FJ100	1/2W 10	1	⚠
R401,02	ERDS2FJ472	1/4W 4.7K	2	
R403-06	ERDS2FJ224	1/4W 220K	4	
R407,08	ERDS2FJ392	1/4W 3.9K	2	
R409,10	ERDS2FJ102	1/4W 1K	2	
R411,12	ERDS2FJ183	1/4W 18K	2	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
R413,14	ERDS2FJ392	1/4W 3.9K	2	
R415-18	ERDS2FJ223	1/4W 22K	4	
R503,04	ERDS2FJ332	1/4W 3.3K	2	
R513,14	ERDS2FJ104	1/4W 100K	2	
R515,16	ERDS2FJ224	1/4W 220K	2	
R521,22	ERDS2FJ331	1/4W 330	2	
R523,24	ERDS2FJ473	1/4W 47K	2	
R525,26	ERDS2FJ101	1/4W 100	2	
R655,56	ERDS2FJ103	1/4W 10K	2	
R701	ERDS2FJ681	1/4W 680	1	
R702,03	ERDS2FJ103	1/4W 10K	2	
R704,05	ERDS2FJ104	1/4W 100K	2	
R706	ERDS2FJ103	1/4W 10K	1	
R707-09	ERDS2FJ104	1/4W 100K	3	
R710	ERDS2FJ103	1/4W 10K	1	
R723-25	ERDS2FJ103	1/4W 10K	3	
R726	ERDS2FJ102	1/4W 1K	1	
R728	ERDS2FJ104	1/4W 100K	1	
R801	ERDS2FJ821	1/4W 820	1	
R802	ERDS2FJ102	1/4W 1K	1	
R803	ERDS2FJ122	1/4W 1.2K	1	
R804	ERDS2FJ152	1/4W 1.5K	1	
R805	ERDS2FJ182	1/4W 1.8K	1	
R806	ERDS2FJ222	1/4W 2.2K	1	
R807	ERDS2FJ332	1/4W 3.3K	1	
R808	ERDS2FJ472	1/4W 4.7K	1	
R809	ERDS2FJ682	1/4W 6.8K	1	
R810	ERDS2FJ123	1/4W 12K	1	
R811	ERDS2FJ223	1/4W 22K	1	
R812	ERDS2FJ561	1/4W 560	1	
R813,14	ERDS2FJ181	1/4W 180	2	
R815	ERDS2FJ331	1/4W 330	1	
R819	ERDS2FJ271	1/4W 270	1	
R820	ERDS2FJ223	1/4W 22K	1	
R821	ERDS2FJ123	1/4W 12K	1	
R822	ERDS2FJ331	1/4W 330	1	
R823	ERDS2FJ181	1/4W 180	1	
R824,25	ERDS2FJ331	1/4W 330	2	
R826,27	ERDS2FJ101	1/4W 100	2	
R828,29	ERDS2FJ103	1/4W 10K	2	
R830	ERDS2FJ331	1/4W 330	1	
RL201 ,02	RSY0020M-R	RELAY	2	
RL501	RSY0020M-R	RELAY	1	
RL521	RSY0020M-R	RELAY	1	
S801,02	EVQ21405R	SW,PUSH	2	
S804	RSR9A001-A	SW,SELECTOR	1	
S805	RSP2B023-A	SW,UNIT ON/OFF	1	
TP1-P5	QJT1090	TEST POINT	5	
VR301	RRV16J05Z24A	VR,VOLUME	1	
VR311, 12	EVNDXAA00B23	VR,OUTPUT VOLT.ADJ.	2	
VR401	EVJ02QF01G15	VR,BALANCE	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
VR402 ,03	EVJYA1F01C15	VR,BASS/TREBLE	2	
X701	RSXY8M00D01T	OSCILLATOR	1	
Z801	RCD12042TH	COMPONENT COMBINATION	1	

13. Cabinet Parts Location

14. Packaging

F990704500YM/MT/YI

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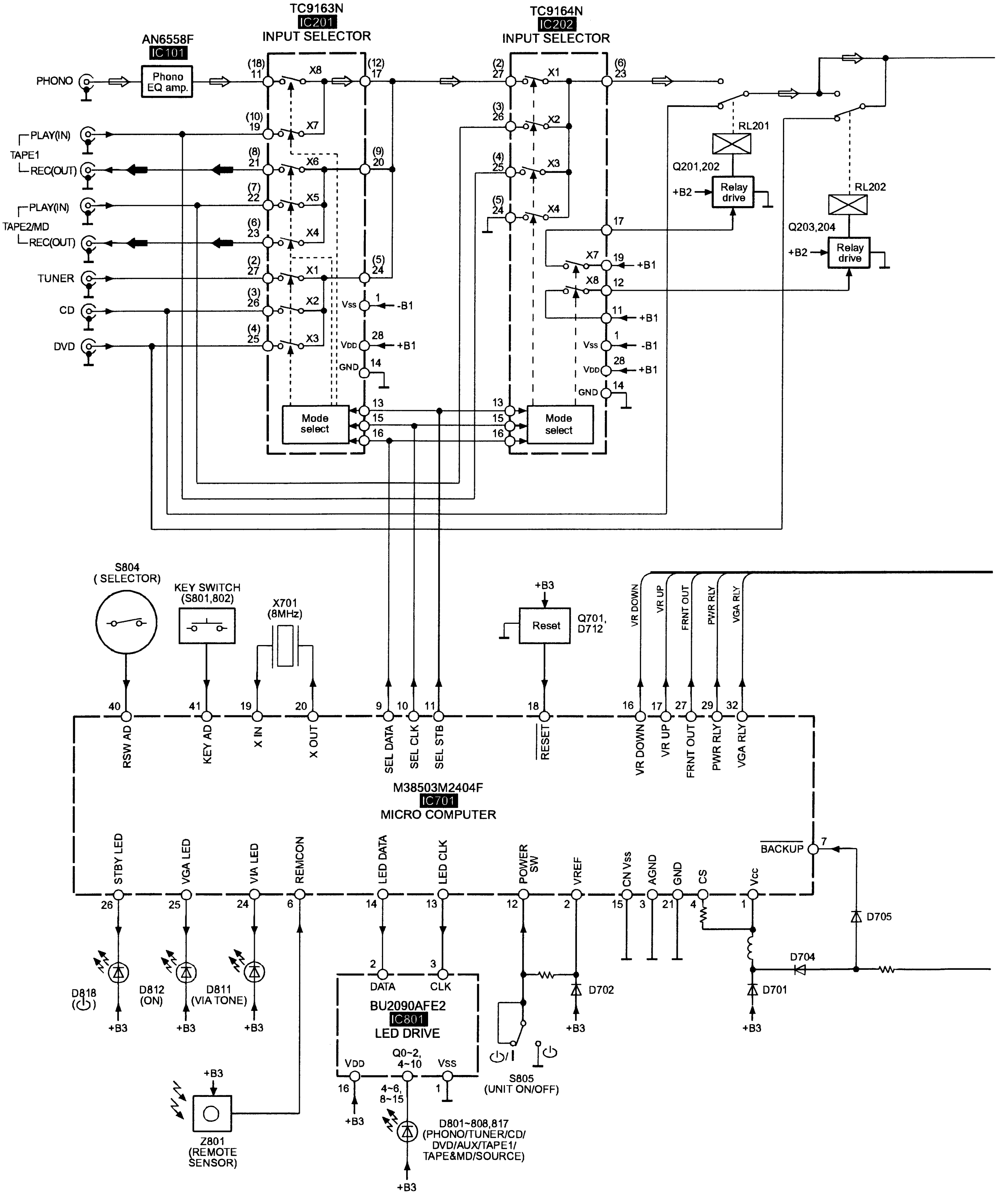
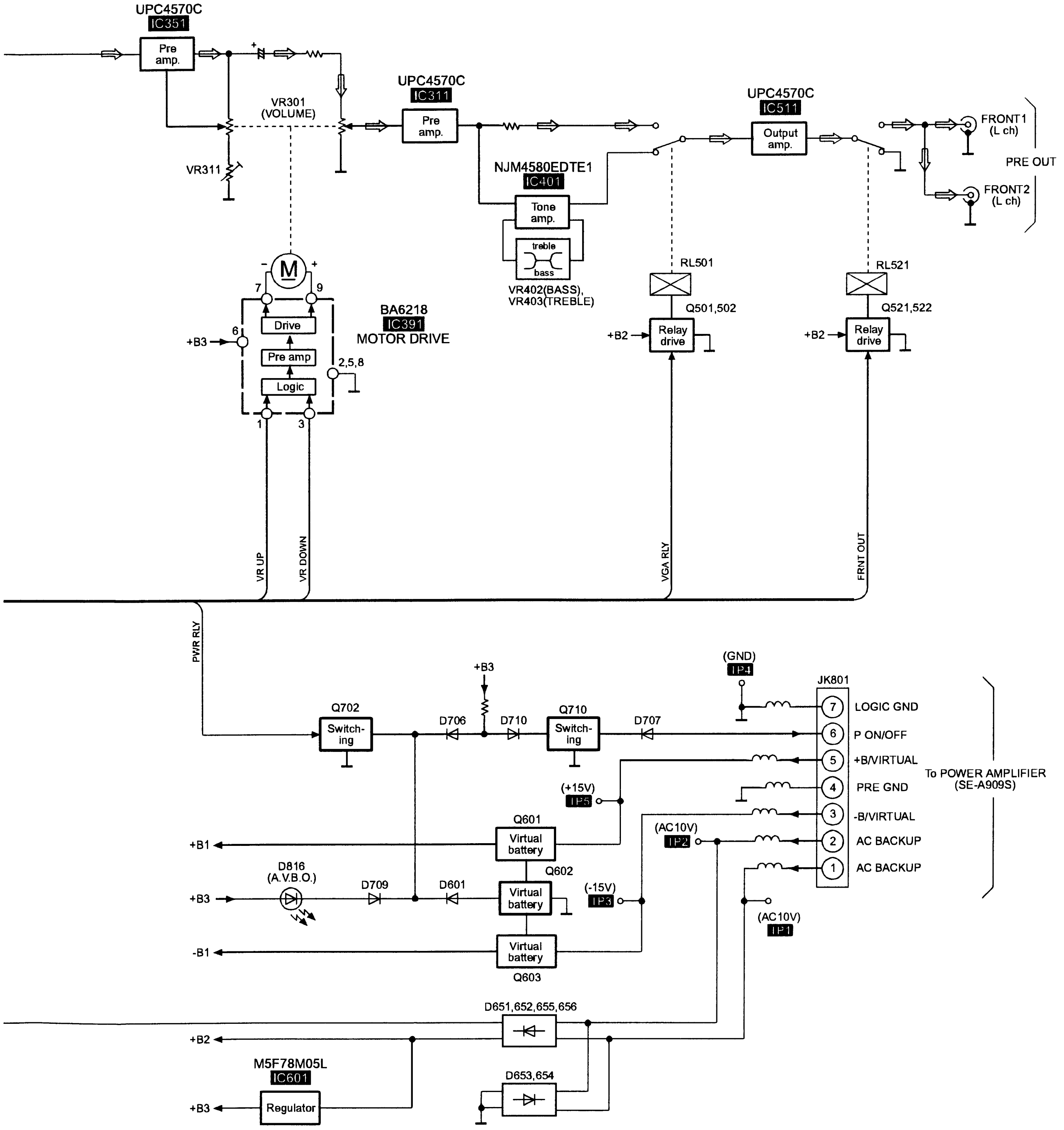
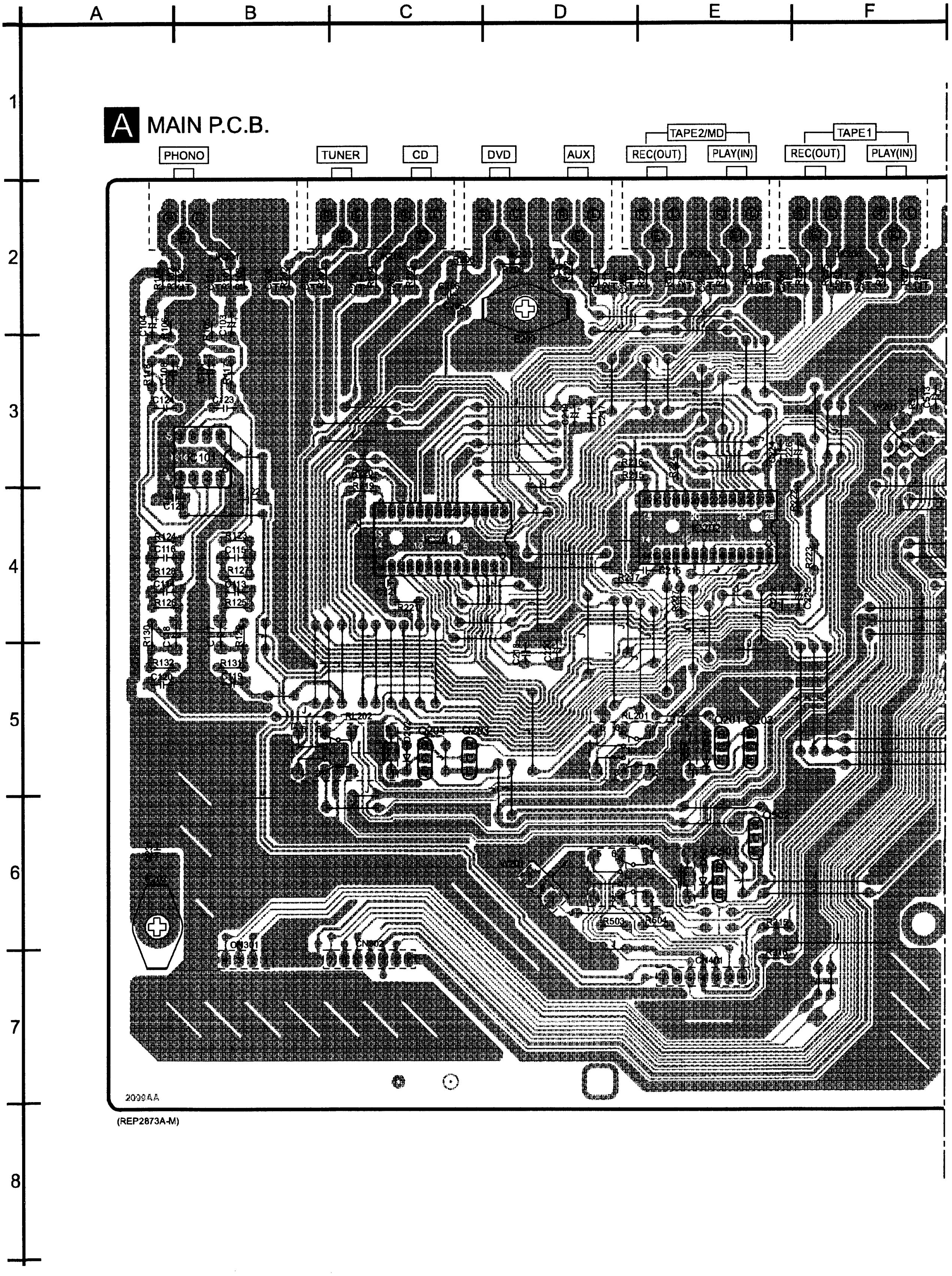
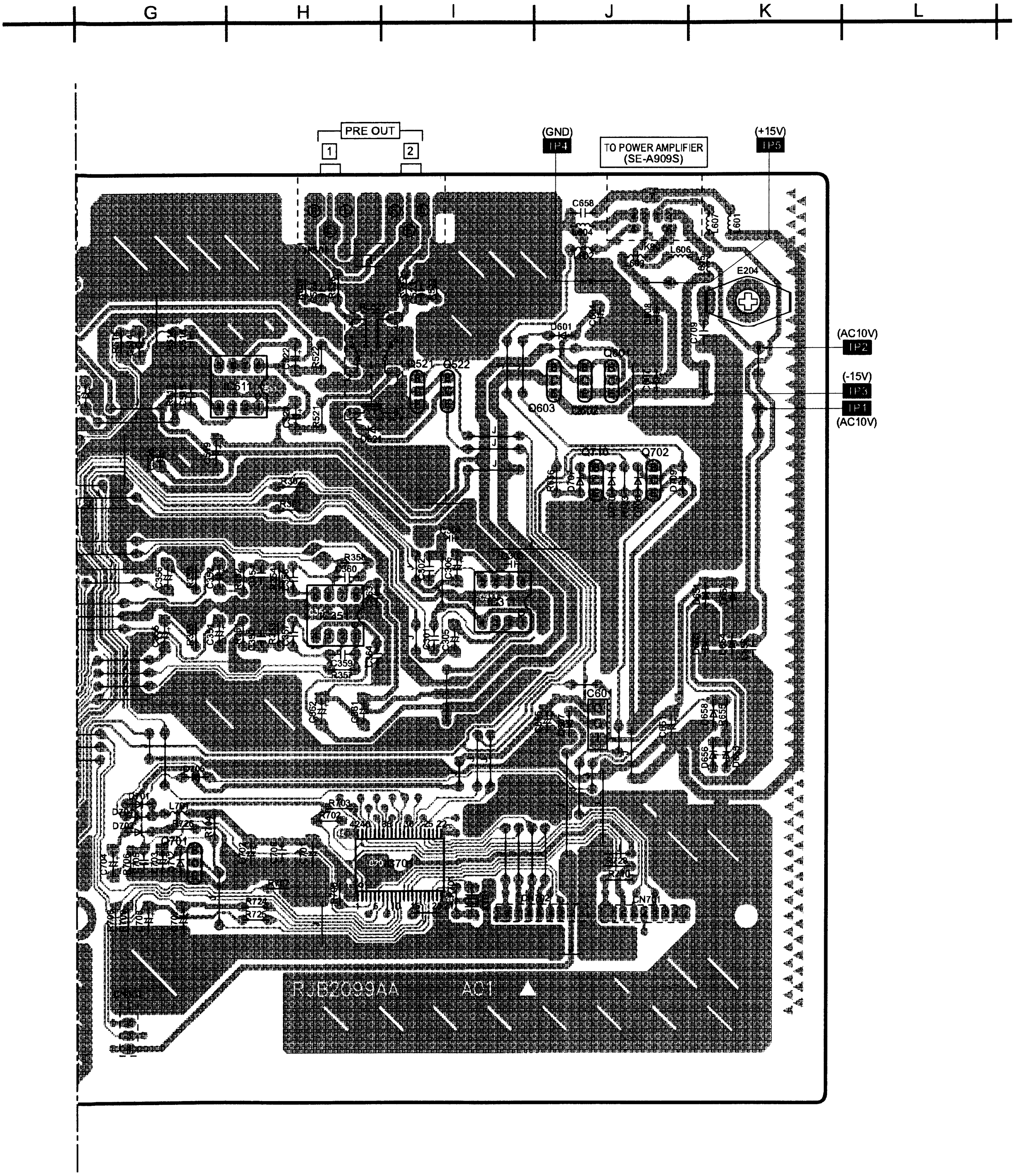

TC9163N
IC201
INPUT SELECTOR
TC9164N
IC202
INPUT SELECTOR
AN6558F
IC101
Phono EQ amp.
PHONO
PLAY(IN)
TAPE1
REC(OUT)
PLAY(IN)
TAPE2/MD
REC(OUT)
TUNER
CD
DVD
X1
X2
X3
X4
X5
X6
X7
X8
Vss
VDD
GND
-B1
+B1
Mode select
RL201
Q201,202
+B2
Relay drive
RL202
Q203,204
S804
(SELECTOR)
KEY SWITCH
(S801,802)
X701
(8MHz)
+B3
Reset
Q701, D712
VR DOWN
VR UP
FRNT OUT
PWR RLY
VGA RLY
RSW AD
KEY AD
X IN
X OUT
SEL DATA
SEL CLK
SEL STB
RESET
M38503M2404F
IC701
MICRO COMPUTER
STBY LED
VGA LED
VIA LED
REMCON
LED DATA
LED CLK
POWER SW
VREF
CN Vss
AGND
GND
CS
Vcc
BACKUP
D705
D704
D701
D702
D818
(⏻)
D812
(ON)
D811
(VIA TONE)
DATA
CLK
BU2090AFE2
IC801
LED DRIVE
VDD
Q0~2, 4~10
VSS
4~6, 8~15
D801~808,817
(PHONO/TUNER/CD/DVD/AUX/TAPE1/TAPE&MD/SOURCE)
⏻/I
S805
(UNIT ON/OFF)
Z801
(REMOTE SENSOR)


UPC4570C
IC351
Pre amp.
VR301
(VOLUME)
VR311
UPC4570C
IC311
Pre amp.
UPC4570C
IC511
Output amp.
FRONT1
(L ch)
PRE OUT
FRONT2
(L ch)
NJM4580EDTE1
IC401
Tone amp.
treble
bass
VR402(BASS),
VR403(TREBLE)
M
RL501
Q501,502
+B2
Relay drive
RL521
Q521,522
+B2
Relay drive
BA6218
IC391
MOTOR DRIVE
+B3
6
7
9
Drive
Pre amp
Logic
2,5,8
1
3
VR UP
VR DOWN
VGA RLY
FRNT OUT
PWR RLY
+B3
Q702
Switch-ing
D706
D710
Q710
Switch-ing
D707
(GND)
TP4
JK801
7
LOGIC GND
6
P ON/OFF
5
+B/VIRTUAL
4
PRE GND
3
-B/VIRTUAL
2
AC BACKUP
1
AC BACKUP
To POWER AMPLIFIER
(SE-A909S)
(+15V)
TP5
Q601
Virtual battery
+B1
(AC10V)
TP2
D816
(A.V.B.O.)
D709
D601
Q602
Virtual battery
+B3
(-15V)
TP3
(AC10V)
TP1
Virtual battery
-B1
Q603
D651,652,655,656
+B2
D653,654
M5F78M05L
IC601
+B3
Regulator

Notes
● Signal line ⇨ : PHONO signal
➡ : TAPE REC signal
● ( ) indicates pin No. Right channel.

A MAIN P.C.B.

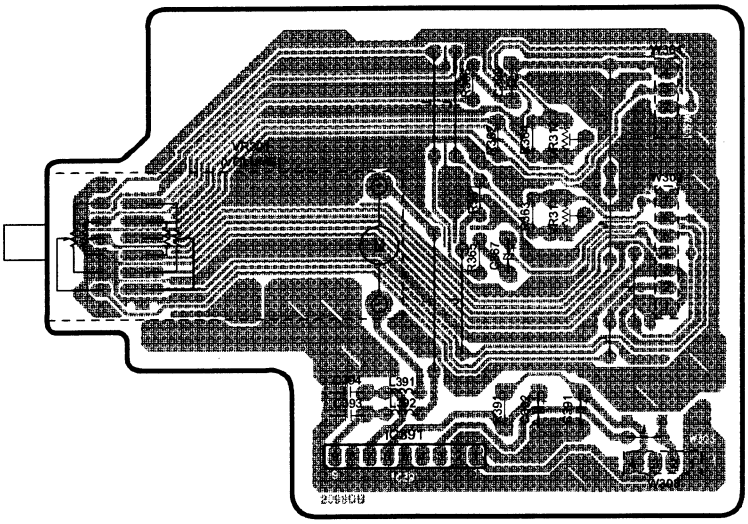

A
B
C
D
E
F
1
2
3
4
5
6
7
8
PHONO
TUNER
CD
DVD
AUX
TAPE2/MD
REC(OUT)
PLAY(IN)
TAPE1
REC(OUT)
PLAY(IN)
C104
C103
C124
C123
C121
IC101
R124
C116
R128
R126
R130
R132
R123
C115
R127
R125
R131
C119
R221
R216
R215
R217
R223
RL202
RL201
Q201
Q202
R503
R504
CN301
CN302
CN401
20094A
(REP2873A-M)


G
H
I
J
K
L
PRE OUT
1
2
(GND)
TP4
TO POWER AMPLIFIER
(SE-A909S)
(+15V)
TP5
(AC10V)
TP2
(-15V)
TP3
TP1
(AC10V)
C658
L606
L607
L601
E204
D601
C709
Q521
Q522
Q603
Q701
Q702
Q716
R358
R302
C359
C356
C305
C60
R722
R724
R703
R702
D656
D658
D701
D702
C704
CN701
RJB2099AA
AC1

■ ELECTRICAL PARTS LOCATION

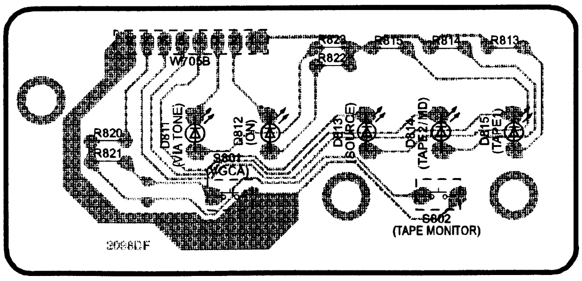
Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
A MAIN P.C.B.																			
IC101	3B	D601	3J	X701	6I	TP4	2J	R206	2C	R352	4H	R706	6G	C123	3B	C256	2E	C516	3G
IC201	4C	D607	5J	RL201	5E	TP5	2J	R211	2D	R353	4H	R707	6H	C124	3A	C257	2F	C519	3G
IC202	4E	D651	4K	RL202	5C	R101	2B	R212	2D	R354	4H	R708	6G	C201	2B	C258	2F	C520	3G
IC311	4I	D652	4K	RL501	6E	R102	2A	R215	3D	R355	4G	R709	6G	C202	2B	C301	5I	C521	3H
IC351	4H	D653	5K	RL521	3H	R103	2B	R216	3D	R356	4G	R710	6J	C203	2C	C302	4I	C522	3H
IC511	3H	D654	5K	CN301	7B	R104	2A	R217	4D	R357	5H	R723	4J	C204	2C	C303	4I	C523	2I
IC601	5J	D655	5K	CN302	7C	R104	3B	R219	4C	R358	4H	R724	6H	C205	2C	C304	4I	C524	2H
IC701	6I	D656	5K	CN303	7G	R105	2B	R220	3C	R503	6D	R725	6H	C206	2C	C305	5I	C601	2J
Q201	5E	D658	5K	CN401	7E	R106	2A	R221	4C	R504	6E	R726	6G	C211	2D	C306	4I	C607	3J
Q202	5E	D701	6G	CN701	6J	R117	3B	R222	4F	R513	3F	R728	6J	C212	2D	C351	4G	C608	2J
Q203	5C	D702	6G	CN702	6J	R118	3A	R223	4F	R514	3G	C101	2B	C215	4E	C352	4G	C651	5J
Q204	5C	D704	6G	JK201	2B	R123	4B	R224	3E	R515	3G	C102	2B	C217	3D	C353	5H	C655	5J
Q501	6E	D705	5G	JK202	2C	R124	4A	R227	4E	R516	3G	C103	2B	C218	5D	C354	4H	C656	5K
Q502	6E	D706	4J	JK203	2D	R125	4B	R251	2E	R521	3H	C104	2A	C219	3D	C355	5G	C658	2J
Q521	3I	D707	3J	JK204	2E	R126	4A	R252	2E	R522	6G	C107	3B	C220	5D	C356	4G	C701	6H
Q522	3I	D709	3J	JK205	2F	R127	4B	R253	2E	R523	2I	C108	3A	C221	4C	C357	4H	C702	6H
Q601	3J	D710	4J	JK501	2H	R128	4A	R254	2E	R524	2H	C113	4B	C223	4E	C358	4H	C703	6G
Q602	3J	D712	6G	JK801	2J	R129	4B	R255	2F	R525	2I	C114	4A	C224	3E	C359	5H	C704	6G
Q603	3J	L601	2K	E202	6A	R130	4A	R256	2F	R526	2H	C115	4B	C225	4F	C360	4H	C705	6G
Q701	6G	L602	2J	E203	2D	R131	5B	R257	2F	R655	5K	C116	4A	C226	3F	C361	5H	C706	6H
Q702	3J	L603	2J	E204	2K	R132	5A	R258	2F	R656	3J	C117	4B	C231	6A	C362	5H	C707	6G
Q710	3J	L604	2J	W201	6D	R201	2B	R301	4H	R701	6I	C118	4A	C251	2E	C363	4H	C708	6G
D201	5E	L605	2K	W201	3F	R202	2B	R302	4H	R702	6H	C119	5B	C252	2D	C364	5H	C709	3K
D202	5C	L606	2J	TP1	3K	R203	2C	R315	6E	R703	6H	C120	5A	C253	2E	C513	3F		
D501	6E	L607	2K	TP2	3K	R204	2C	R316	7E	R704	6G	C121	4A	C254	2E	C514	3G		
D521	3H	L701	6G	TP3	3K	R205	2D	R351	4H	R705	6H	C122	4B	C255	2F	C515	3G		

C VOLUME P.C.B.



(REP2841D-S)

E OPERATION P.C.B.

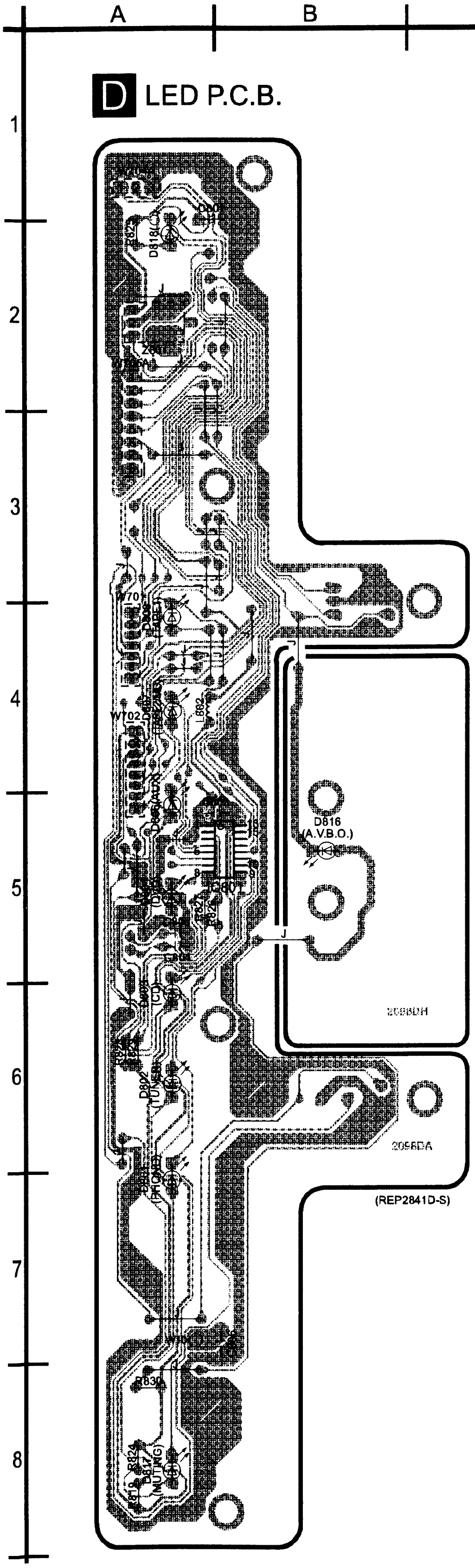


(REP2841D-S)

■ ELECTRICAL PARTS LOCATION

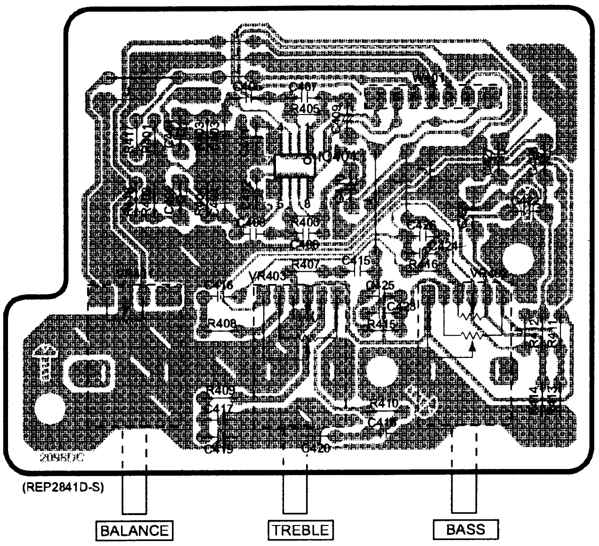
Ref. No.	Lo. No.	Ref. No.	Lo. No.
C VOLUME P.C.B.			
IC391	6C	R363	5C
VR301	5B	R364	5C
VR311	5D	R365	5C
VR312	5D	R366	4C
L391	6C	R391	6C
L392	6C	C367	5C
W301	4D	C368	4C
W302	5D	C391	6D
W303	6D	C392	6C
R361	5C	C393	6C
R362	5C	C394	6C
L OPERATION P.C.B.			
D811	8B	R813	7D
D812	8B	R814	7C
D813	8C	R815	7C
D814	8C	R820	8B
D815	8D	R821	8B
S801	8B	R822	7C
S802	8C	R823	7C
W705B	7B		

D LED P.C.B.


A
B
C
D
E
F
1
2
3
4
5
6
7
8
D818(L)
Z801
W705A
W701
W702
L802
IC801
D816
(A.V.B.O.)
J
(CD)
(TUNER)
(PHONO)
(MUTING)
R830
2098DH
2098DA

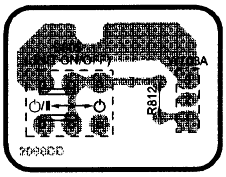
(REP2841D-S)

B TONE P.C.B.


C407
R405
R408
R407
VR403
C415
C416
R415
R409
C417
C419
C420
R410
C418
2098DC
BALANCE
TREBLE
BASS

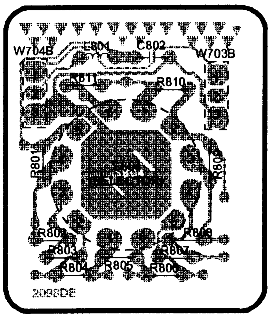
(REP2841D-S)

F POWER SWITCH P.C.B.


S805
(POWER ON/OFF)
W703A
R812
2098DD

(REP2841D-S)

G SELECTOR P.C.B.


W704B
L801
C802
W703B
R811
R810
R801
R809
R802
R803
R804
R805
R806
R807
R808
2098DE

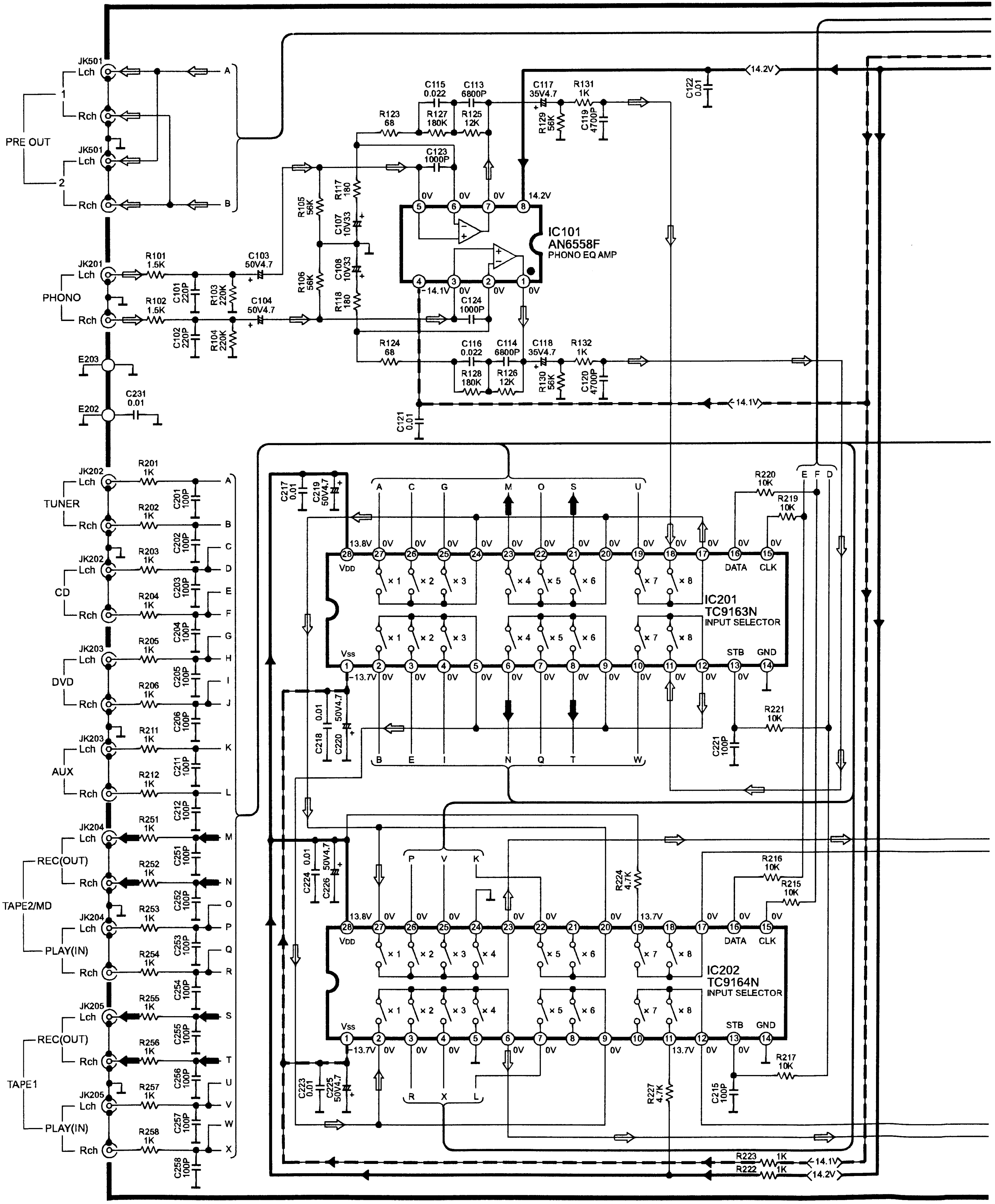
(REP2841D-S)

■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
B TONE P.C.B.									
IC401	2E	R406	2E	R416	2E	C408	2E	C420	3E
VR401	3D	R407	2E	R417	2D	C409	2E	C421	2F
VR402	3F	R408	3D	R418	2D	C410	2E	C422	2F
VR403	3E	R409	3D	C401	2D	C411	2E	C423	2E
W401	1E	R410	3E	C402	2D	C412	2E	C424	2E
R401	2D	R411	3F	C403	2D	C415	2E	C425	2E
R402	2D	R412	3F	C404	2D	C416	2D	C426	2E
R403	2D	R413	3F	C405	1E	C417	3D	C427	2F
R404	2D	R414	3F	C406	2E	C418	3E	C428	2F
R405	1E	R415	3E	C407	1E	C419	3D		
D LED P.C.B.									
IC801	5B	D808	4A	W701	4A	R826	5A	C804	5A
D801	7A	D816	5B	W702	4A	R827	5A	C805	5A
D802	6A	D817	8A	W704A	1A	R828	6A	C806	7B
D803	6A	D818	2A	W705A	3A	R829	6A		
D804	5A	L802	4A	R819	8A	R830	8A		
D806	5A	Z801	2A	R824	8A	C801	1A		
D807	4A	W10	7A	R825	2A	C803	5B		
F POWER SWITCH P.C.B.									
S805	5D	W703A	5D	R812	5D				
G SELECTOR P.C.B.									
L801	4E	R801	5E	R805	5E	R809	5F		
S804	5E	R802	5E	R806	5F	R810	4F		
W703B	4F	R803	5E	R807	5F	R811	4E		
W704B	4F	R804	5E	R808	5F	C802	4F		

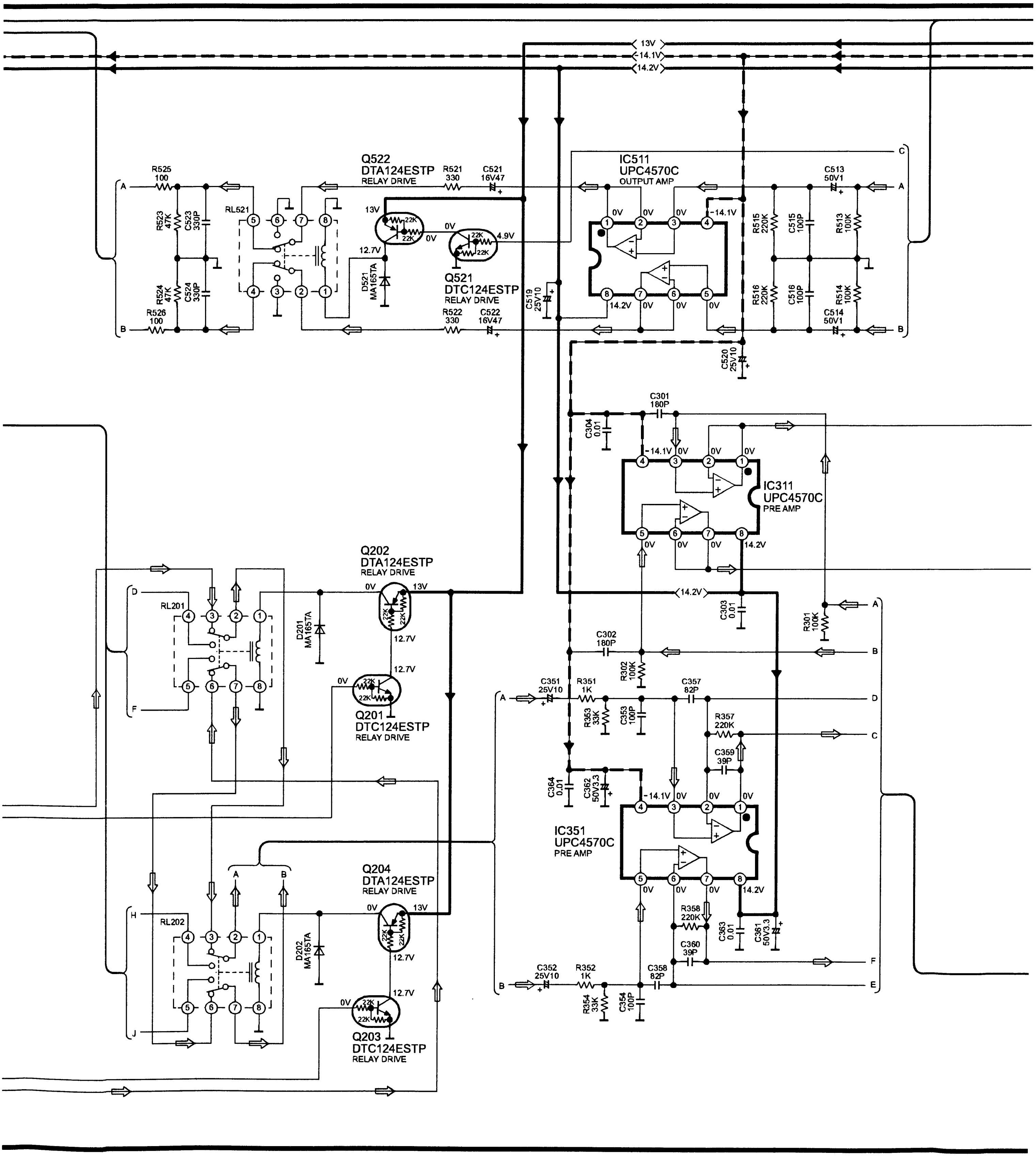
A MAIN CIRCUIT

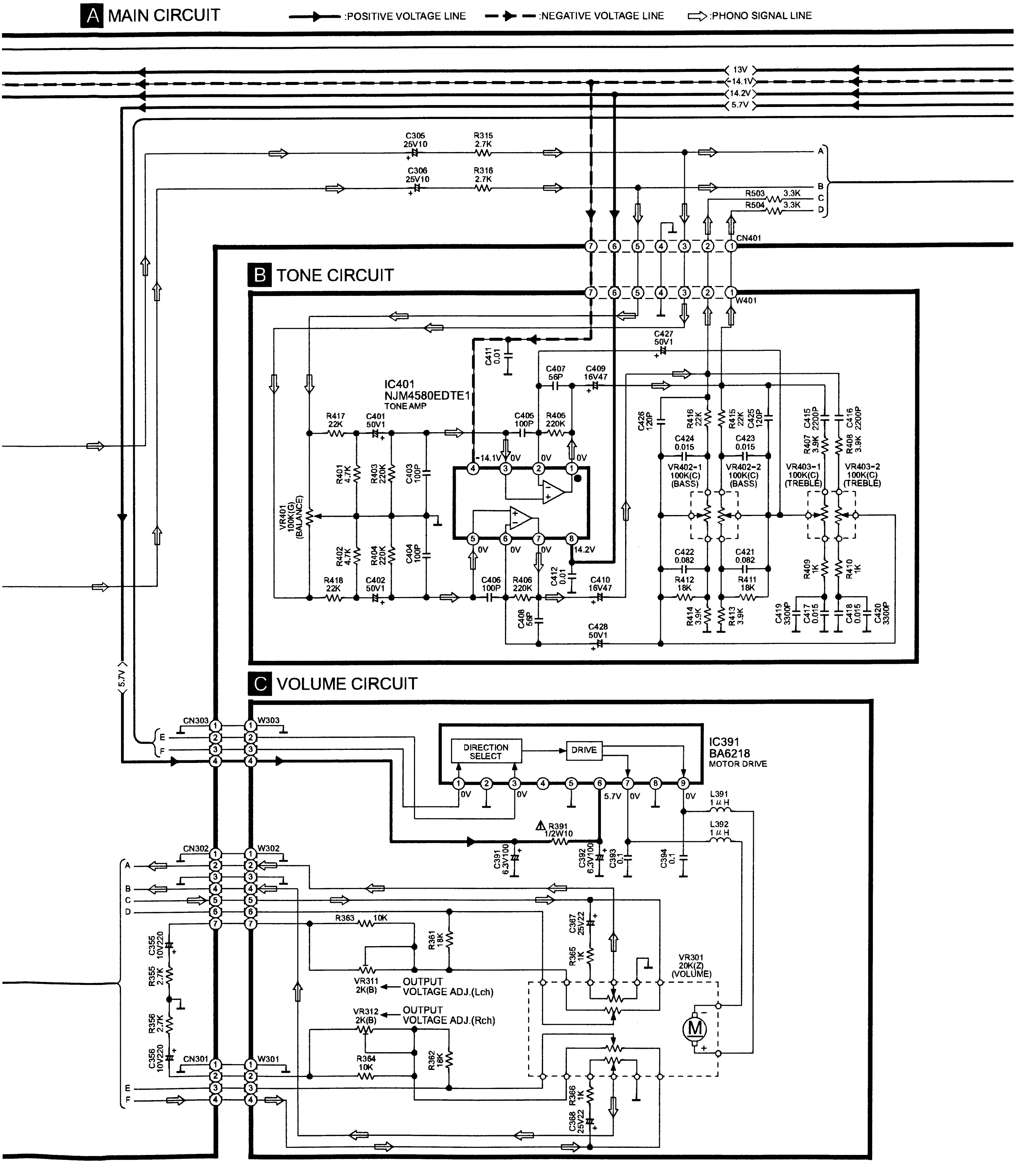
:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:PHONO SIGNAL LINE
:TAPE REC SIGNAL LINE

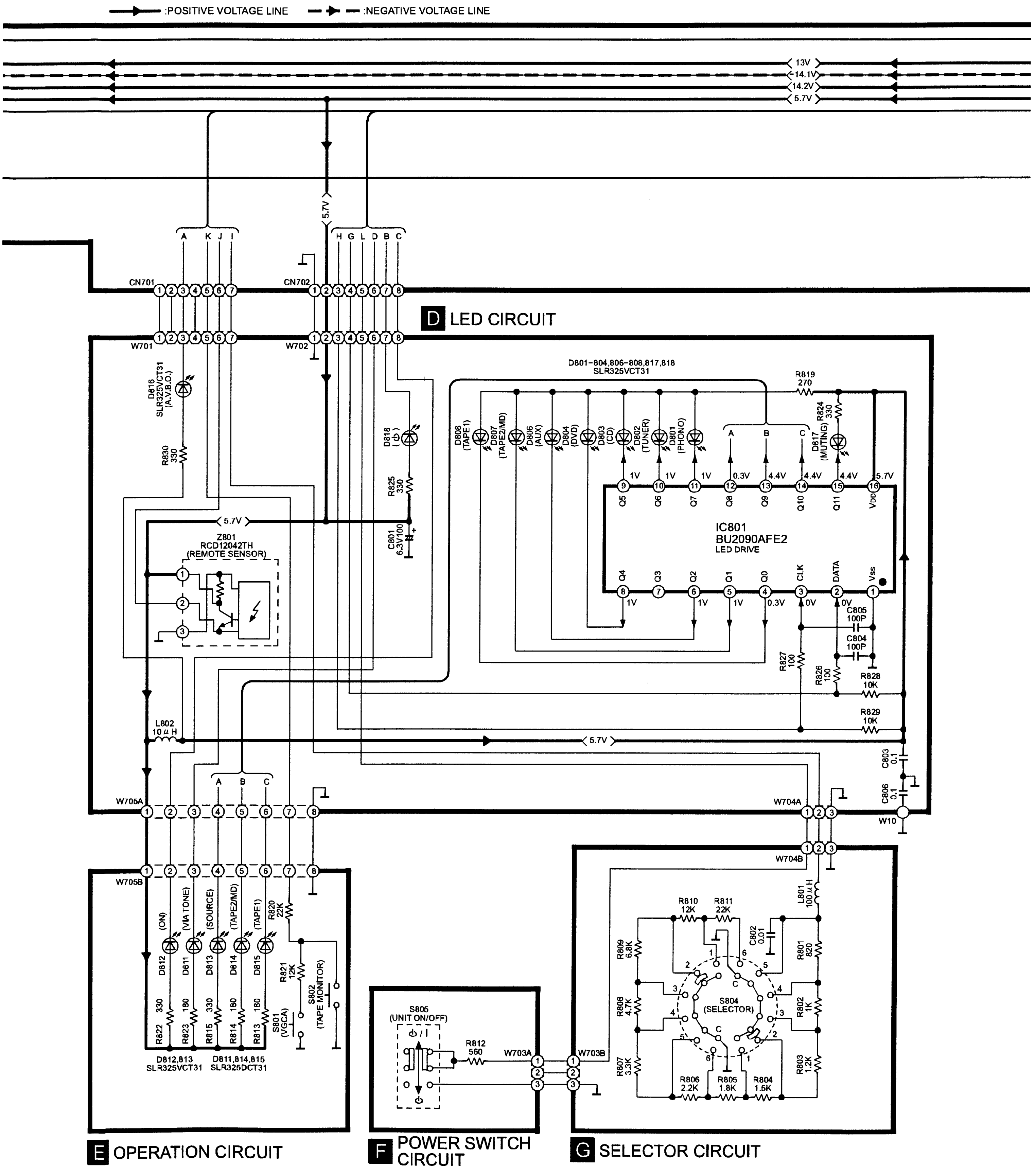


PRE OUT
JK501
Lch
Rch
PHONO
JK201
R101 1.5K
R102 1.5K
C101 220P
C102 220P
R103 220K
R104 220K
C103 50V4.7
C104 50V4.7
R105 56K
R106 56K
R117 180
R118 180
C107 10V33
C108 10V33
R123 68
R124 68
C115 0.022
C116 0.022
C113 6800P
C114 6800P
R127 180K
R128 180K
R125 12K
R126 12K
C123 1000P
C124 1000P
C117 35V4.7
C118 35V4.7
R131 1K
R132 1K
R129 56K
R130 56K
C119 4700P
C120 4700P
C122 0.01
C121 0.01
14.2V
-14.1V
IC101
AN6558F
PHONO EQ AMP
E203
E202
C231 0.01
TUNER
JK202
CD
JK203
DVD
AUX
TAPE2/MD
JK204
REC(OUT)
PLAY(IN)
TAPE1
JK205
R201 1K
R202 1K
R203 1K
R204 1K
R205 1K
R206 1K
R211 1K
R212 1K
R251 1K
R252 1K
R253 1K
R254 1K
R255 1K
R256 1K
R257 1K
R258 1K
C201 100P
C202 100P
C203 100P
C204 100P
C205 100P
C206 100P
C211 100P
C212 100P
C251 100P
C252 100P
C253 100P
C254 100P
C255 100P
C256 100P
C257 100P
C258 100P
C217 0.01
C219 50V4.7
C218 0.01
C220 50V4.7
IC201
TC9163N
INPUT SELECTOR
VDD
Vss
DATA
CLK
STB
GND
13.8V
-13.7V
R220 10K
R219 10K
R221 10K
C221 100P
E F D
C224 0.01
C226 50V4.7
C223 0.01
C225 50V4.7
R224 4.7K
R227 4.7K
IC202
TC9164N
INPUT SELECTOR
13.7V
R216 10K
R215 10K
R217 10K
C215 100P
R223 1K
R222 1K
14.1V
14.2V

:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE ⇨:PHONO SIGNAL LINE

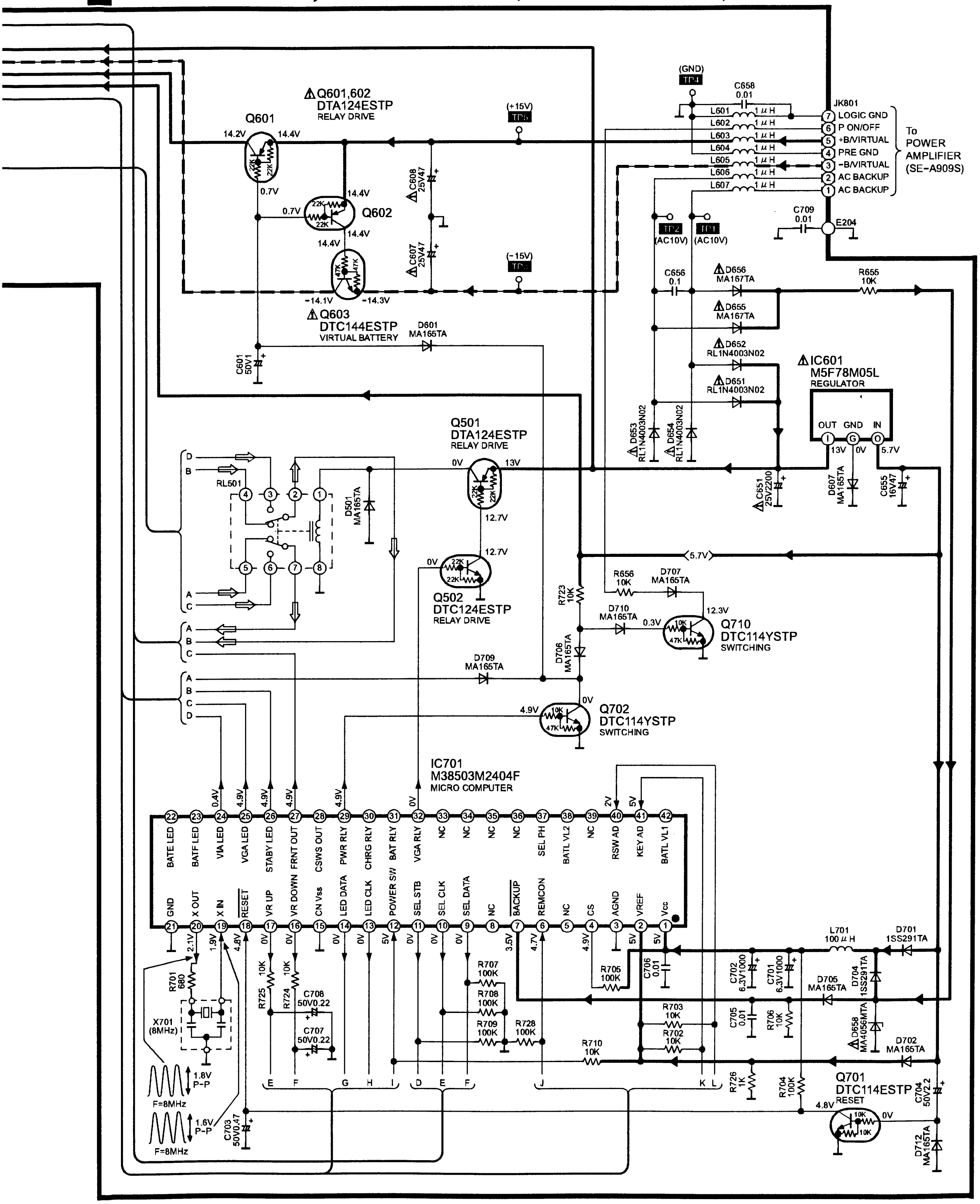

13V
14.1V
14.2V
Q522
DTA124ESTP
RELAY DRIVE
R525
100
R521
330
C521
16V47
IC511
UPC4570C
OUTPUT AMP
C513
50V1
A
B
C
R523
47K
C523
330P
RL521
R524
47K
C524
330P
R526
100
13V
22K
0V
4.9V
12.7V
D521
MA165TA
Q521
DTC124ESTP
RELAY DRIVE
R522
330
C522
16V47
C519
25V10
0V
-14.1V
14.2V
R515
220K
C515
100P
R513
100K
R516
220K
C516
100P
R514
100K
C514
50V1
C520
25V10
C301
180P
C304
0.01
IC311
UPC4570C
PRE AMP
Q202
DTA124ESTP
RELAY DRIVE
D
F
RL201
D201
MA165TA
12.7V
Q201
DTC124ESTP
RELAY DRIVE
C303
0.01
R301
100K
C302
180P
R302
100K
C351
25V10
R351
1K
C357
82P
R353
33K
C353
100P
R357
220K
C359
39P
C364
0.01
C362
50V3.3
IC351
UPC4570C
PRE AMP
Q204
DTA124ESTP
RELAY DRIVE
H
J
RL202
D202
MA165TA
Q203
DTC124ESTP
RELAY DRIVE
R358
220K
C363
0.01
C361
50V3.3
C360
39P
C352
25V10
R352
1K
C358
82P
R354
33K
C354
100P
E


A MAIN CIRCUIT
:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
:PHONO SIGNAL LINE
13V
-14.1V
14.2V
5.7V
C305 25V10
R315 2.7K
C306 25V10
R316 2.7K
R503 3.3K
R504 3.3K
A
B
C
D
CN401
B TONE CIRCUIT
W401
C427 50V1
C411 0.01
C407 56P
C409 16V47
IC401
NJM4580EDTE1
TONE AMP
R417 22K
C401 50V1
C405 100P
R405 220K
C426 120P
R416 22K
R415 22K
C425 120P
C415 2200P
C416 2200P
C424 0.015
C423 0.015
R407 3.9K
R408 3.9K
-14.1V
0V
R401 4.7K
R403 220K
C403 100P
VR402-1 100K(C) (BASS)
VR402-2 100K(C) (BASS)
VR403-1 100K(C) (TREBLE)
VR403-2 100K(C) (TREBLE)
VR401 100K(G) (BALANCE)
R402 4.7K
R404 220K
C404 100P
14.2V
C422 0.082
C421 0.082
R409 1K
R410 1K
R418 22K
C402 50V1
C406 100P
R406 220K
C412 0.01
C410 16V47
R412 18K
R411 18K
R414 3.9K
R413 3.9K
C419 3300P
C417 0.015
C418 0.015
C420 3300P
C408 56P
C428 50V1
5.7V
C VOLUME CIRCUIT
CN303
W303
E
F
DIRECTION SELECT
DRIVE
IC391
BA6218
MOTOR DRIVE
5.7V
L391 1μH
L392 1μH
R391 1/2W10
C391 6.3V100
C392 6.3V100
C393 0.1
C394 0.1
CN302
W302
A
B
C
D
R363 10K
R361 18K
C367 25V22
R365 1K
VR301 20K(Z) (VOLUME)
C355 10V220
R355 2.7K
VR311 2K(B)
OUTPUT VOLTAGE ADJ.(Lch)
R356 2.7K
VR312 2K(B)
OUTPUT VOLTAGE ADJ.(Rch)
M
C356 10V220
CN301
W301
R364 10K
R362 18K
R366 1K
C368 25V22
E
F

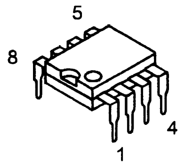

:POSITIVE VOLTAGE LINE
:NEGATIVE VOLTAGE LINE
13V
14.1V
14.2V
5.7V
CN701
CN702
W701
W702
D LED CIRCUIT
D801-804,806-808,817,818
SLR325VCT31
D816
SLR325VCT31
(A.V.B.O.)
R830 330
D818
R825 330
C801 6.3V100
Z801
RCD12042TH
(REMOTE SENSOR)
D808 (TAPE1)
D807 (TAPE2/MD)
D806 (AUX)
D804 (DVD)
D803 (CD)
D802 (TUNER)
D801 (PHONO)
D817 (MUTING)
R819 270
R824 330
IC801
BU2090AFE2
LED DRIVE
Q5
Q6
Q7
Q8
Q9
Q10
Q11
VDD
Q4
Q3
Q2
Q1
Q0
CLK
DATA
Vss
C805 100P
C804 100P
R827 100
R826 100
R828 10K
R829 10K
L802 10μH
C803 0.1
C806 0.1
W10
W705A
W704A
W705B
W704B
E OPERATION CIRCUIT
D812 (ON)
D811 (VIA TONE)
D813 (SOURCE)
D814 (TAPE2/MD)
D815 (TAPE1)
R820 22K
R821 12K
S801 (VGCA)
S802 (TAPE MONITOR)
R822 330
R823 180
R815 330
R814 180
R813 180
D812,813
SLR325VCT31
D811,814,815
SLR325DCT31
F POWER SWITCH CIRCUIT
S805
(UNIT ON/OFF)
R812 560
W703A
W703B
G SELECTOR CIRCUIT
L801 100μH
R810 12K
R811 22K
C802 0.01
R809 6.8K
R801 820
R808 4.7K
R802 1K
R807 3.3K
R803 1.2K
S804 (SELECTOR)
R806 2.2K
R805 1.8K
R804 1.5K

A MAIN CIRCUIT

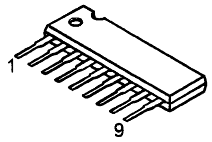
:POSITIVE VOLTAGE LINE :NEGATIVE VOLTAGE LINE :PHONO SIGNAL LINE


Q601,602
DTA124ESTP
RELAY DRIVE
Q601
14.2V
14.4V
22K
0.7V
Q602
14.4V
0.7V
22K
14.4V
14.4V
47K
-14.1V
-14.3V
Q603
DTC144ESTP
VIRTUAL BATTERY
D601
MA165TA
C601
50V1
C608
25V47
C607
25V47
(+15V)
TP3
(-15V)
TP5
(GND)
TP4
C658
0.01
L601 1μH
L602 1μH
L603 1μH
L604 1μH
L605 1μH
L606 1μH
L607 1μH
JK801
7 LOGIC GND
6 P ON/OFF
5 +B/VIRTUAL
4 PRE GND
3 -B/VIRTUAL
2 AC BACKUP
1 AC BACKUP
To
POWER
AMPLIFIER
(SE-A909S)
C709
0.01
E204
TP2
(AC10V)
TP1
(AC10V)
C656
0.1
D656
MA167TA
D655
MA167TA
R655
10K
D652
RL1N4003N02
D651
RL1N4003N02
D653
RL1N4003N02
D654
RL1N4003N02
IC601
M5F78M05L
REGULATOR
OUT GND IN
13V 0V 5.7V
C651
25V2200
D607
MA165TA
C655
16V47
Q501
DTA124ESTP
RELAY DRIVE
0V
13V
12.7V
12.7V
0V
22K
Q502
DTC124ESTP
RELAY DRIVE
D501
MA165TA
RL501
D
B
A
C
A
B
C
A
B
C
D
5.7V
R656
10K
D707
MA165TA
12.3V
R723
10K
D710
MA165TA
0.3V
10K
47K
Q710
DTC114YSTP
SWITCHING
D706
MA165TA
D709
MA165TA
0V
4.9V
Q702
DTC114YSTP
SWITCHING
IC701
M38503M2404F
MICRO COMPUTER
0.4V 4.9V 4.9V 4.9V 4.9V 0V 2V 5V
22 BATE LED
23 BATF LED
24 VIA LED
25 VGA LED
26 STABY LED
27 FRNT OUT
28 CSWS OUT
29 PWR RLY
30 CHRG RLY
31 BAT RLY
32 VGA RLY
33 NC
34 NC
35 NC
36 NC
37 SEL PH
38 BATL VL2
39 NC
40 RSW AD
41 KEY AD
42 BATL VL1
21 GND
20 X OUT
19 X IN
18 RESET
17 VR UP
16 VR DOWN
15 CN Vss
14 LED DATA
13 LED CLK
12 POWER SW
11 SEL STB
10 SEL CLK
9 SEL DATA
8 NC
7 BACKUP
6 REMCON
5 NC
4 CS
3 AGND
2 VREF
1 Vcc
2.1V 1.9V 4.8V 0V 0V 0V 0V 5V 0V 0V 0V 3.5V 4.7V 4.9V 5V 5V
R701
680
X701
(8MHz)
1.8V
P-P
F=8MHz
1.6V
P-P
F=8MHz
C703
50V0.47
R725
10K
R724
10K
C708
50V0.22
C707
50V0.22
R707
100K
R708
100K
R709
100K
R728
100K
R710
10K
R705
100K
C706
0.01
R703
10K
R702
10K
C705
0.01
R706
10K
C702
6.3V1000
C701
6.3V1000
L701
100μH
D701
1SS291TA
D705
MA165TA
D704
1SS291TA
D658
MA4056MTA
D702
MA165TA
R726
1K
R704
100K
Q701
DTC114ESTP
RESET
4.8V
0V
10K
C704
50V2.2
D712
MA165TA
E F G H I D E F J K L

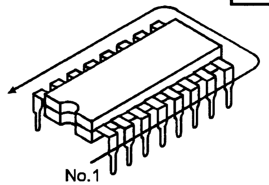
UPC4570C
AN6558F



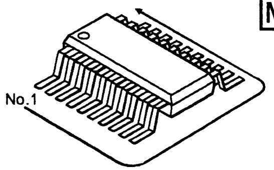
BA6218



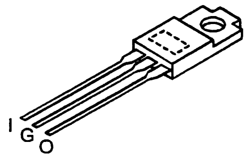
TC9163N	28PIN
TC9164N	28PIN

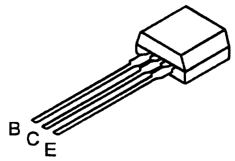


NJM4580EDTE1	8PIN
BU2090AFE2	16PIN
M38503M2404F	42PIN



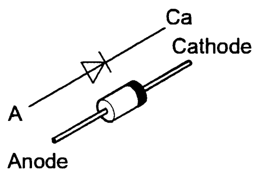
M5F78M05L



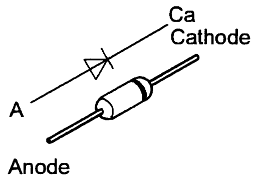


DTC114ESTP
DTC114YSTP
DTA124ESTP
DTC124ESTP
DTC144ESTP

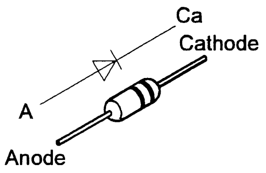
RL1N4003N02


Ca
Cathode
A
Anode

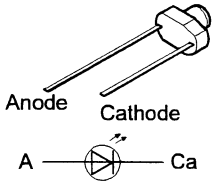
MA165TA
MA167TA


Ca
Cathode
A
Anode

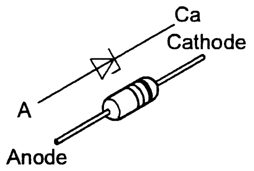
1SS291TA

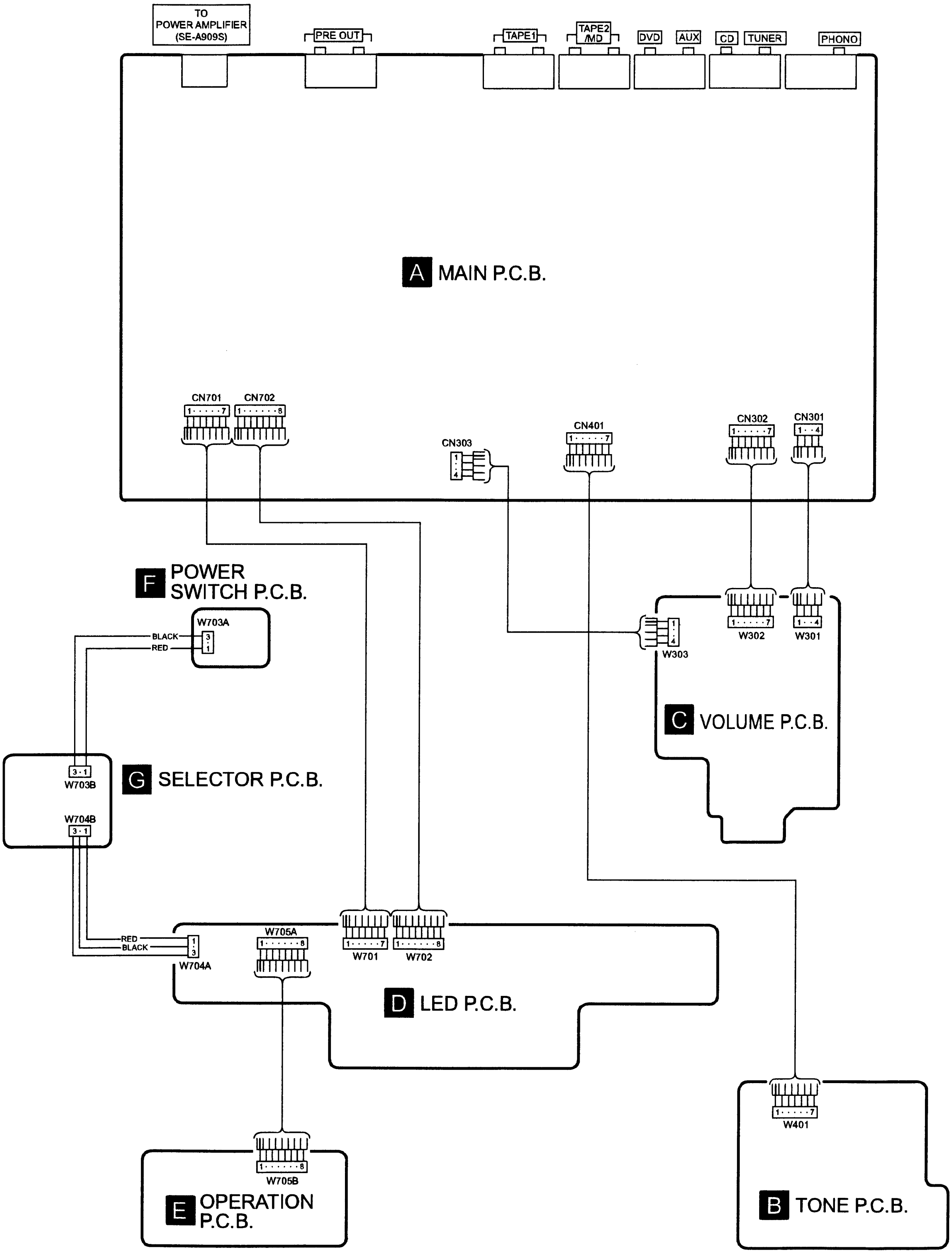

Ca
Cathode
A
Anode

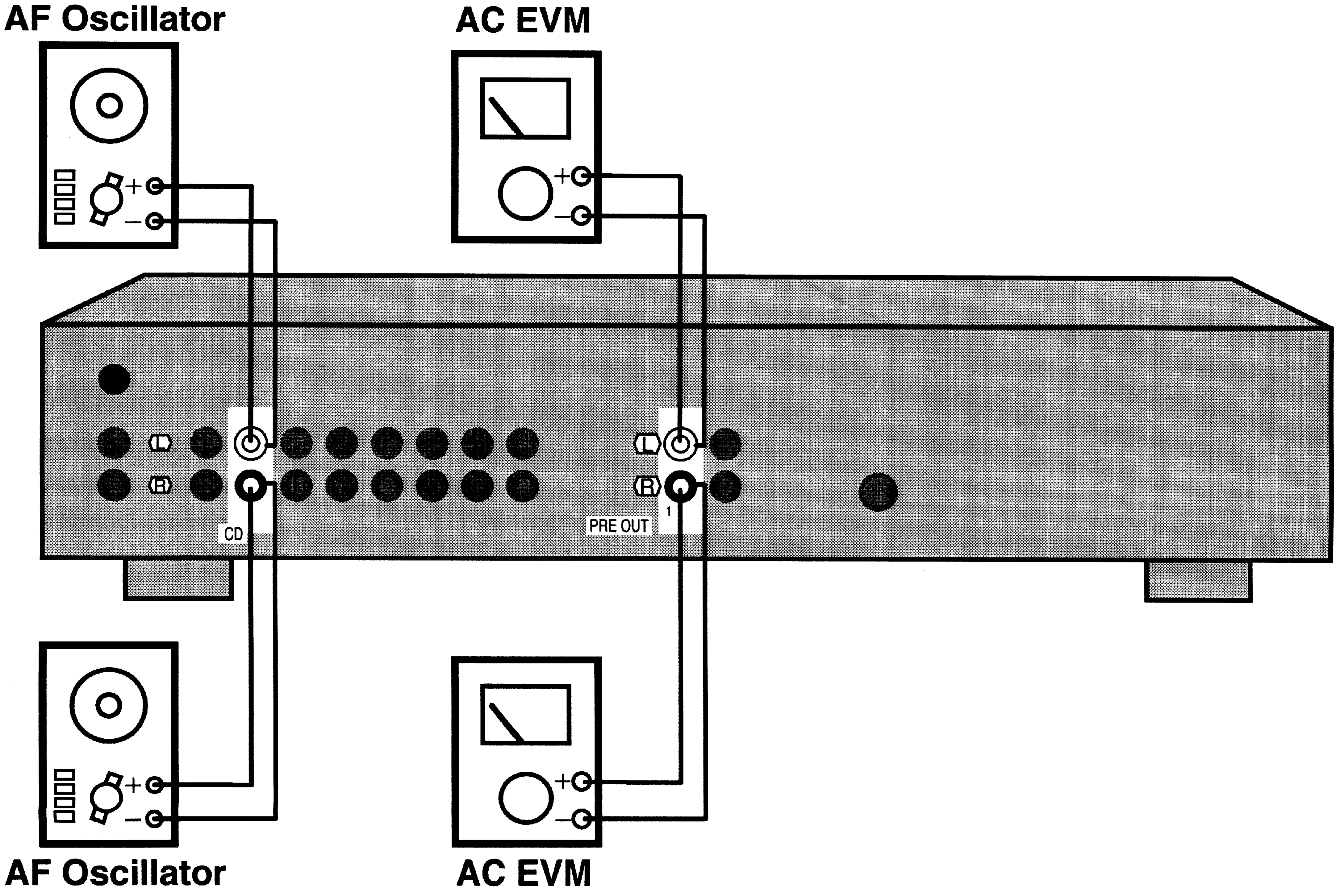
SLR325DCT31
SLR325VCT31

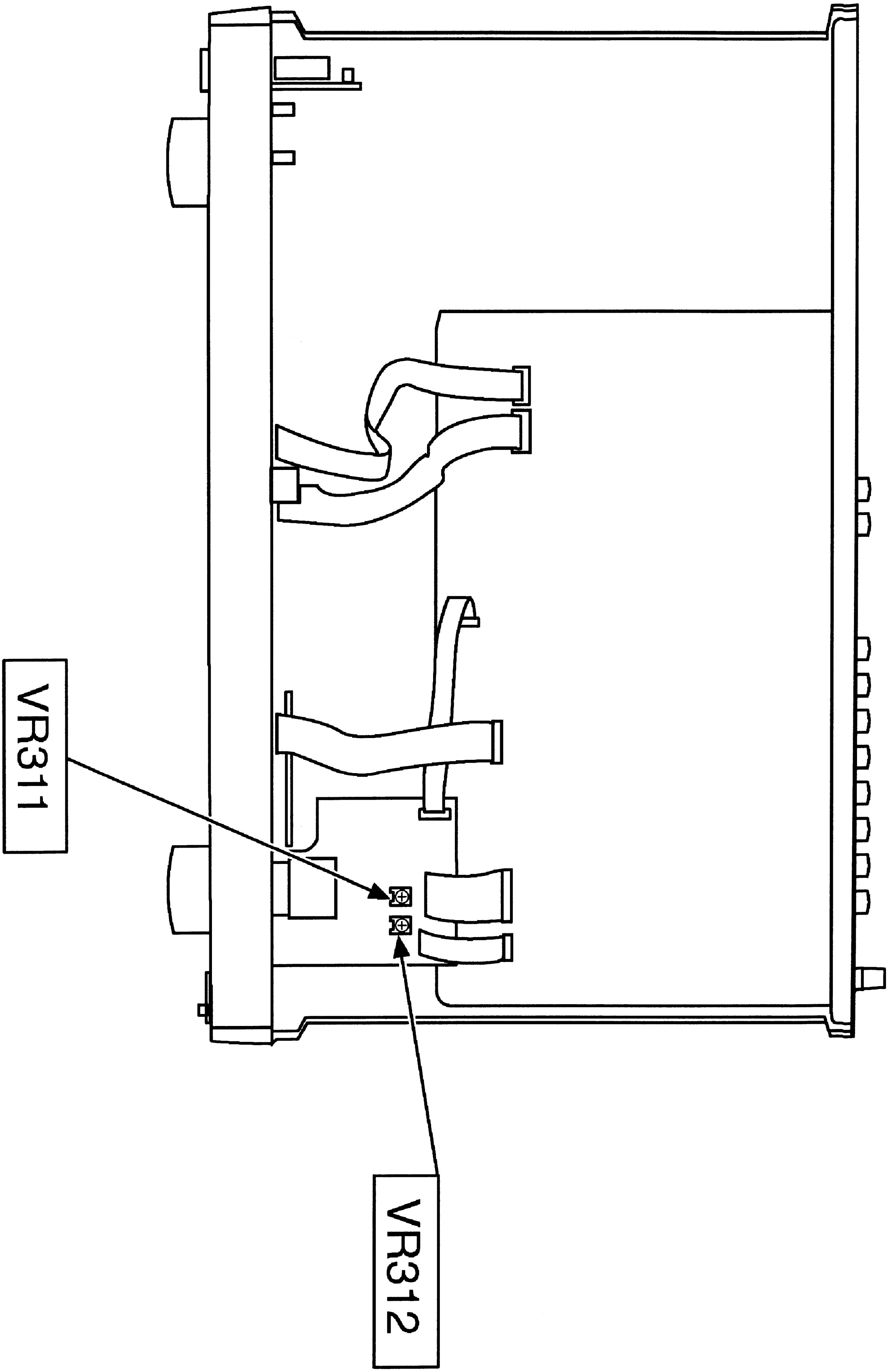

Anode
Cathode
A
Ca

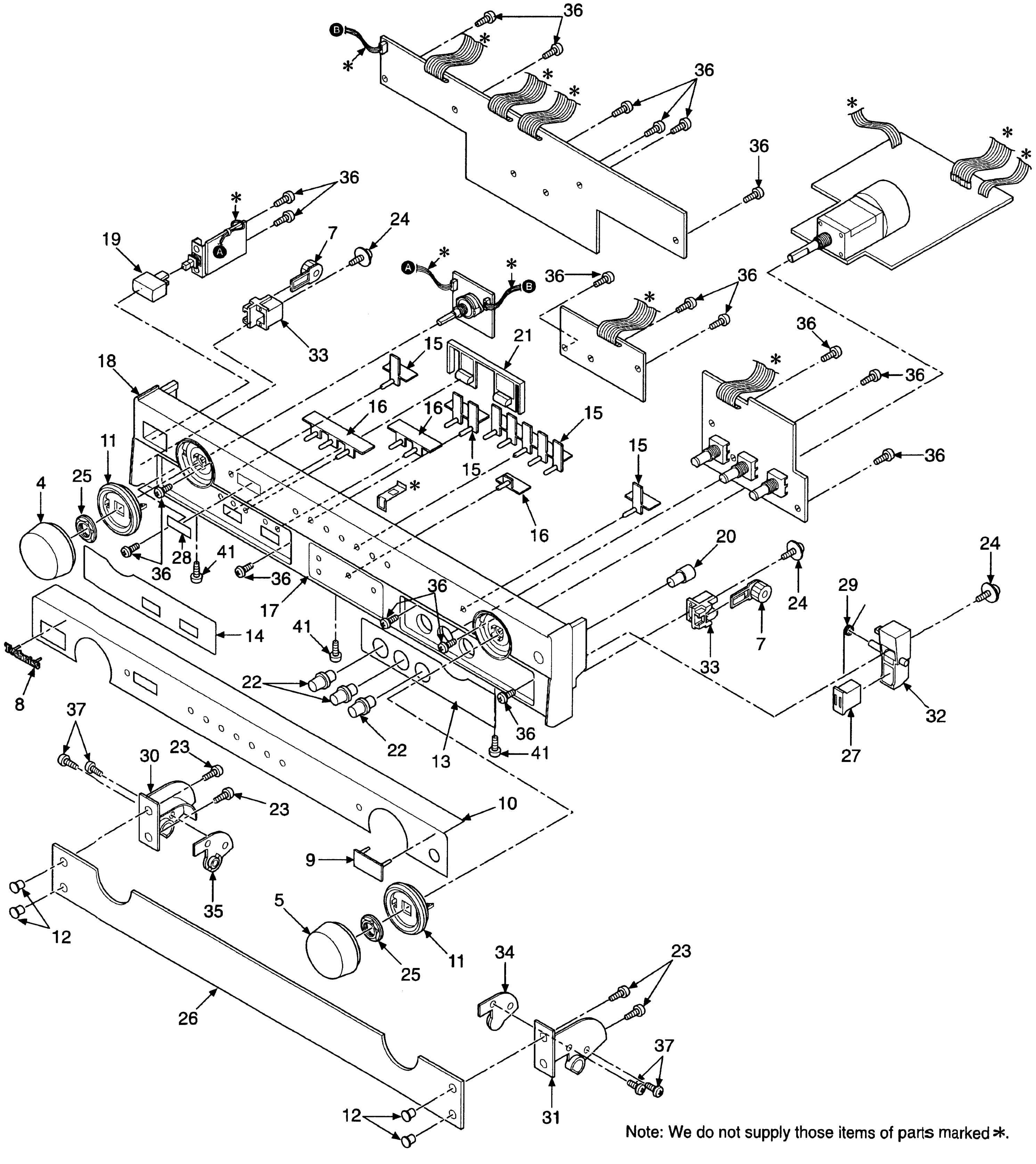
MA4056MTA


Ca
Cathode
A
Anode

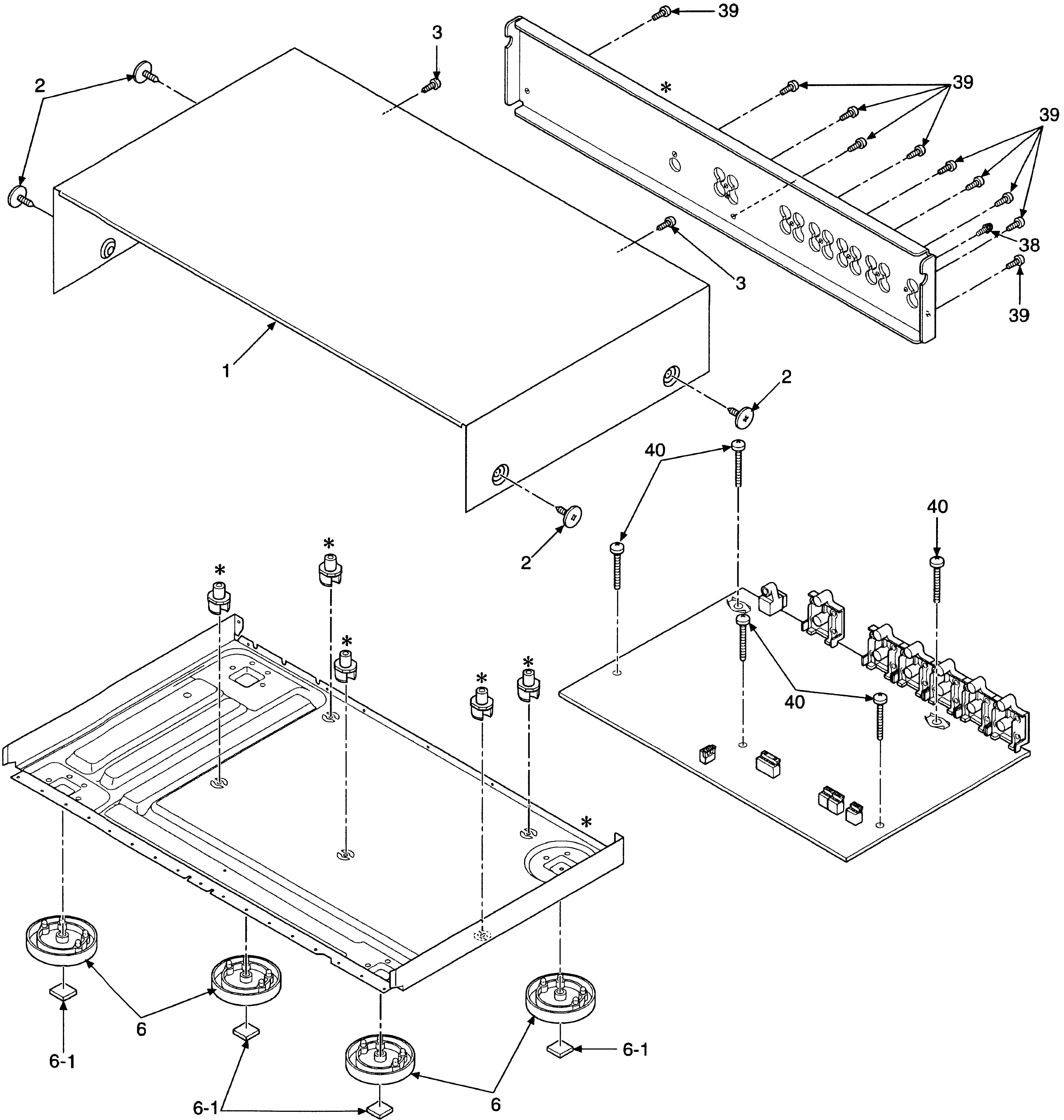

TO
POWER AMPLIFIER
(SE-A909S)
PRE OUT
TAPE1
TAPE2
/MD
DVD
AUX
CD
TUNER
PHONO
A MAIN P.C.B.
CN701
1 · · · · · 7
CN702
1 · · · · · · 8
CN303
1
4
CN401
1 · · · · · 7
CN302
1 · · · · · 7
CN301
1 · · 4
F POWER SWITCH P.C.B.
W703A
BLACK
RED
3
1
W302
1 · · · · · 7
W301
1 · · 4
W303
1
4
C VOLUME P.C.B.
G SELECTOR P.C.B.
3 · 1
W703B
W704B
3 · 1
RED
BLACK
1
3
W704A
W705A
1 · · · · · · 8
W701
1 · · · · · 7
W702
1 · · · · · · 8
D LED P.C.B.
W401
1 · · · · · 7
W705B
1 · · · · · · 8
E OPERATION P.C.B.
B TONE P.C.B.


AF Oscillator
AC EVM
+
−
L
R
CD
PRE OUT
1
AF Oscillator
AC EVM


VR311
VR312


36
B
*
*
*
*
36
*
36
*
*
19
A
*
36
7
24
A
*
*
B
36
36
33
18
15
21
16
16
15
36
11
25
4
15
*
15
16
36
28
41
36
17
20
24
24
29
36
14
41
33
7
8
22
22
36
32
13
41
27
37
23
30
23
10
9
35
12
5
25
11
34
23
26
37
31
12

Note: We do not supply those items of parts marked *.

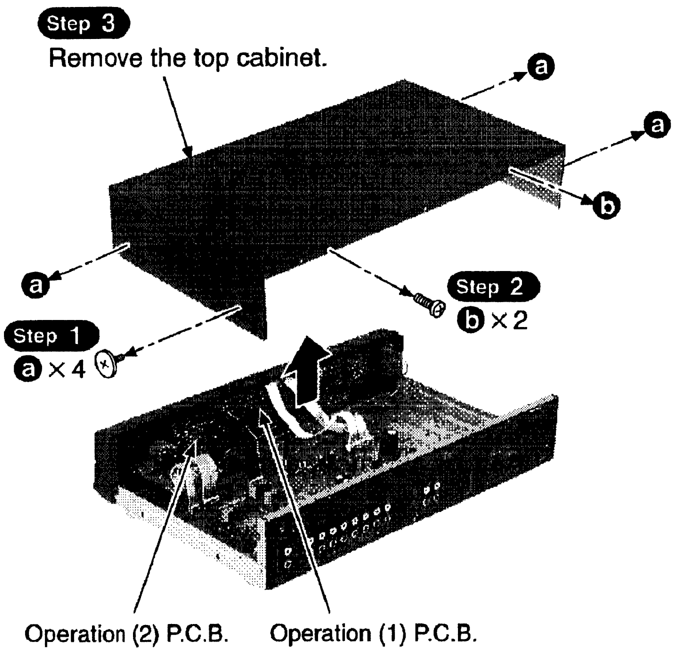

39
3
2
*
39
39
38
39
1
3
2
40
2
40
*
*
*
*
*
40
*
6
6-1
6-1
6-1
6

Note: We do not supply those items of parts marked *.

NOTE 1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.

2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

1. Checking for the operation (1) P.C.B., operation (2) P.C.B. and main P.C.B.



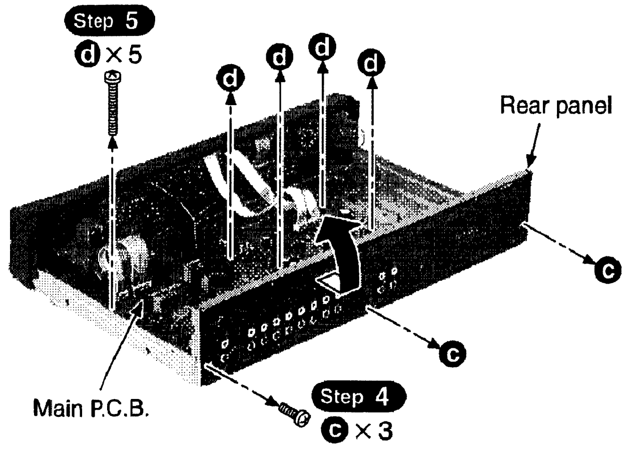
Step 3 Remove the top cabinet.

Step 2 ⓑ × 2

Step 1 ⓐ × 4

ⓐ
ⓐ
ⓑ
ⓐ
Operation (2) P.C.B.
Operation (1) P.C.B.

- **Check the operation (1) P.C.B. and operation (2) P.C.B. as shown above**



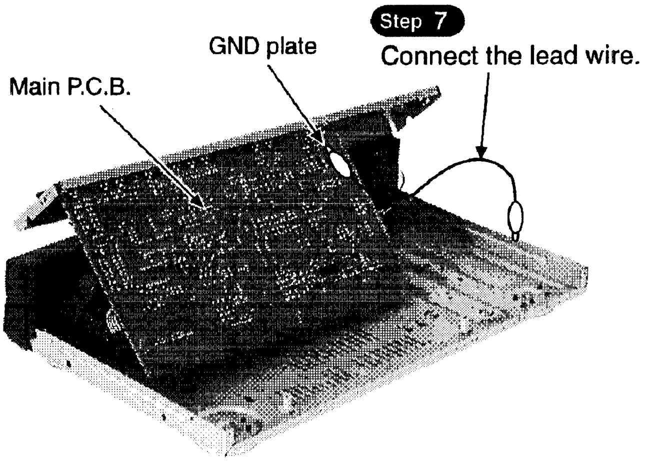
Step 5 ⓓ × 5

Step 4 ⓒ × 3

ⓓ
ⓓ
ⓓ
ⓓ
Rear panel
ⓒ
ⓒ
Main P.C.B.

Step 6 Remove the main P.C.B. and rear panel in the direction of arrow.

- **Check the main P.C.B. as shown below.**



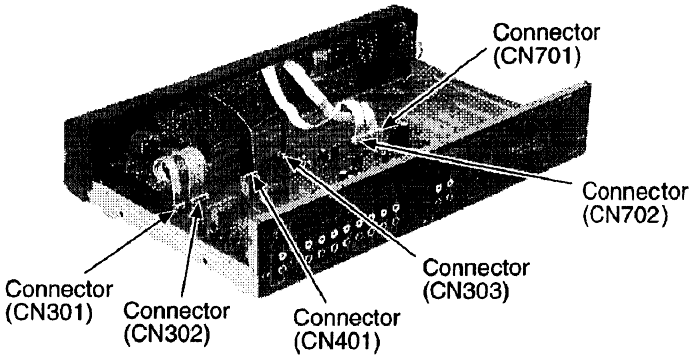
Step 7 Connect the lead wire.

GND plate
Main P.C.B.

To remove each P.C.B.

- Follow the **Step 1** ~ **Step 3** of the item 1.

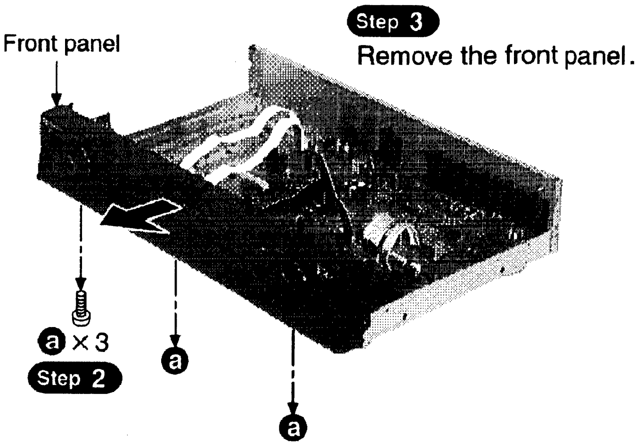
Step 1 Remove the 6 connectors.



Connector (CN701)
Connector (CN702)
Connector (CN303)
Connector (CN301)
Connector (CN302)
Connector (CN401)

Step 3 Remove the front panel.

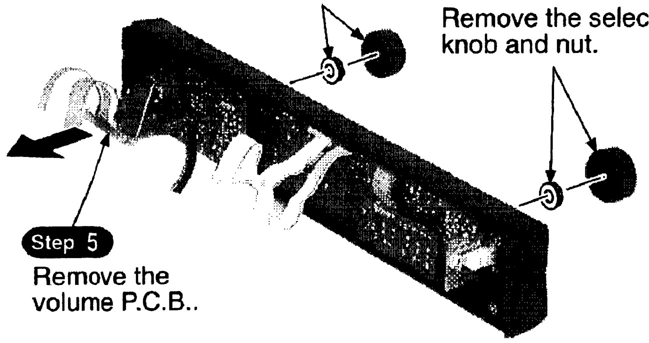
Step 2 ⓐ × 3



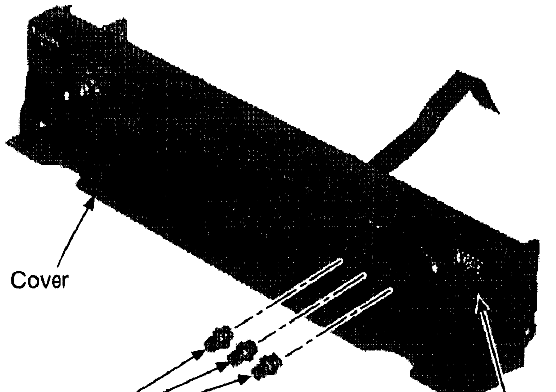
Front panel
ⓐ
ⓐ

Step 4
Remove the volume knob and nut.

Step 6
Remove the selector knob and nut.



Step 5
Remove the volume P.C.B..



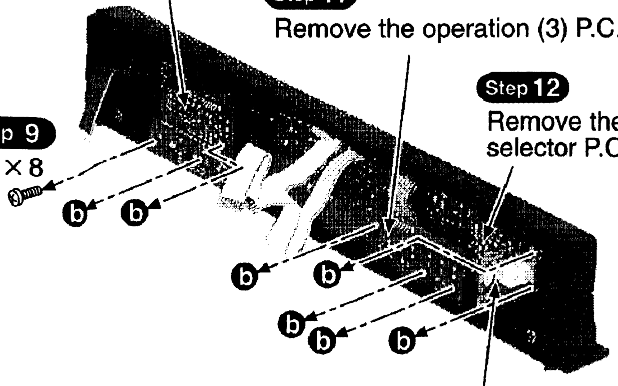
Step 8
Pull out the balance knob, treble knob and bass knob.

Step 7
Push the open button, and then open the cover.

Step 10
Remove the operation (2) P.C.B..

Step 11
Remove the operation (3) P.C.B..

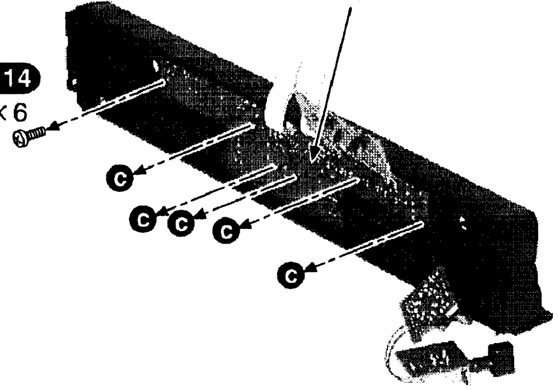
Step 12
Remove the selector P.C.B..



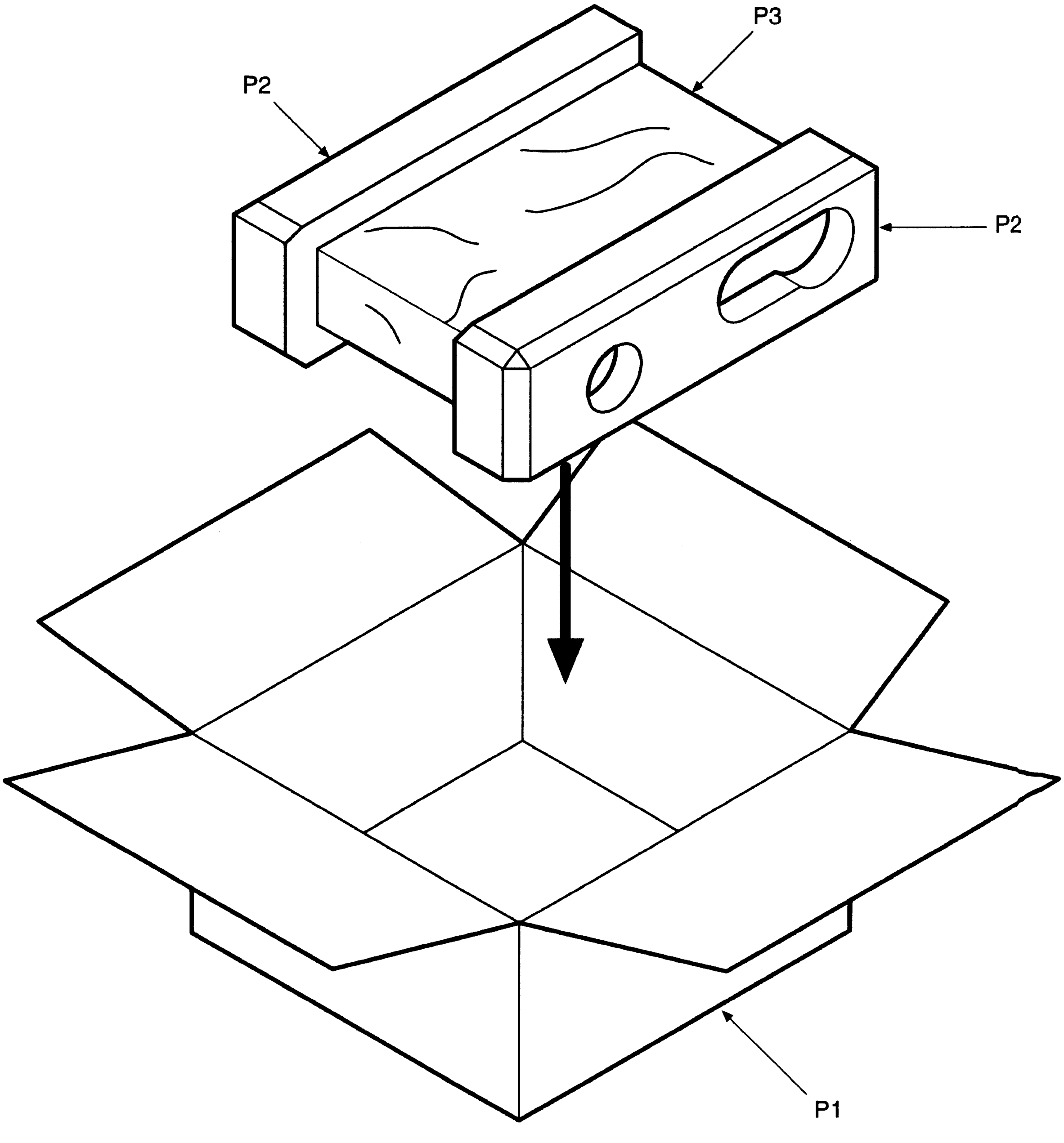
Step 9
b × 8

Step 13
Remove the power switch P.C.B..

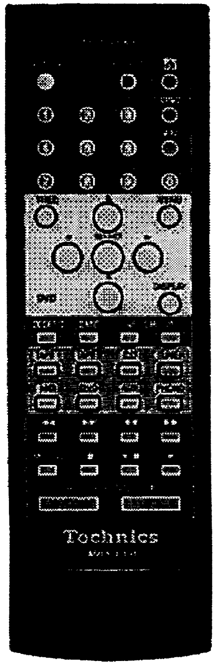
Step 15
Remove the operation (1) P.C.B..



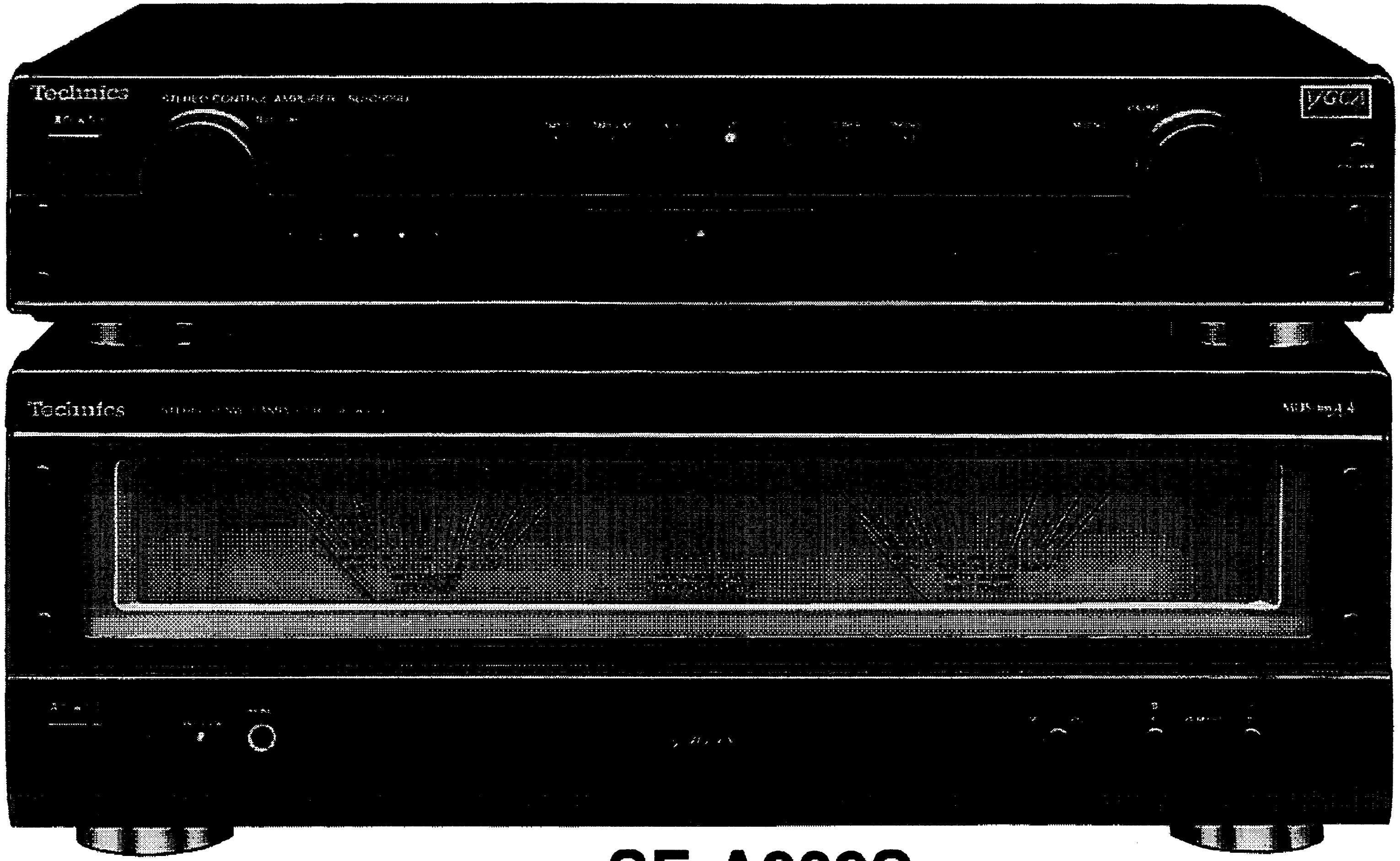
Step 14
c × 6


P3
P2
P2
P1

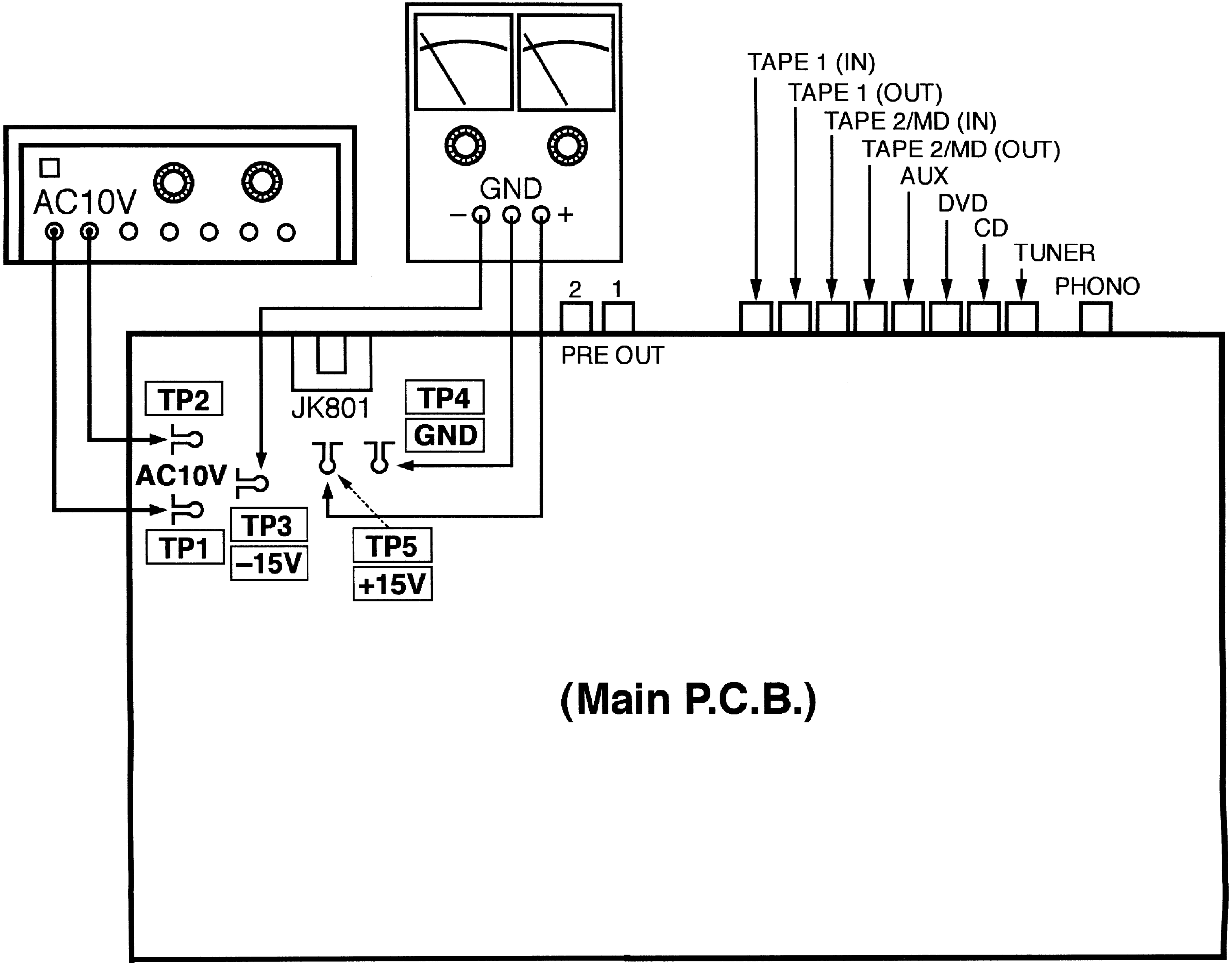
Remote Control Transmitter



SU-C909U


Technics
Technics

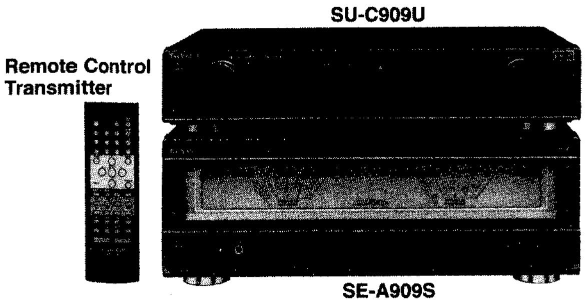
SE-A909S

AC10V
GND
−
+
2
1
PRE OUT
TAPE 1 (IN)
TAPE 1 (OUT)
TAPE 2/MD (IN)
TAPE 2/MD (OUT)
AUX
DVD
CD
TUNER
PHONO
TP2
JK801
TP4
GND
AC10V
TP1
TP3
−15V
TP5
+15V
(Main P.C.B.)

AD9907177C2

Service Manual

Power Amplifier



SE-A909S

Colour

(K)..........Black Type

Areas

(E)..........Europe and Russia.

(EB).......Great Britain.

(EG).......Germany, France and Italy.

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

System: SU-A909

Control Amplifier	SU-C909U
Power Amplifier	**SE-A909S**

Specifications (DIN 45 500)

20 Hz–20 kHz continuous power output both channels driven:	2 × 70W (8 Ω)
1 kHz continuous power output both channels driven (THD: 1%)	2 × 85 W (8 Ω) 2 × 120 W (4 Ω)
63 Hz-12.5 kHz continuous power output both channels driven (THD: 0.7%)	2 × 80 W (8 Ω) 2 × 105 W (4 Ω)
Total harmonic distortion rated power at 20 Hz–20 kHz:	0.015 % (8 Ω)
Intermodulation distortion (50 Hz:7 kHz=4:1, SMPTE) rated power:	0.007 % (8 Ω)
Residual hum and noise:	0.3 mV
Damping factor:	70 (8 Ω) 35 (4 Ω)
Headphones ourput level / impedance:	540 mV / 330 Ω
Load impedance:	
A or B;	4 –16 Ω
A and B;	8 –16 Ω
Input sensitivity / impedance:	1 V / 20 kΩ
S/N (rated power, 4 Ω):	95 dB (115 dB, IHF '66)

Frequency response:	
INPUT;	5 Hz – 100 kHz (+0 dB, –3 dB) 20 Hz – 20 kHz (+0 dB, –0.5 dB)

■ GENERAL

Power supply:	
(E) and (EG) areas;	AC 50 Hz, 230 V
(EB) area;	AC 50 Hz, 230 – 240 V
Power consumption:	285 W
STANDBY;	1.6 W
Dimensions (W × H × D):	430 × 158 × 344 mm
Weight:	10.1 kg

Notes:

1. Specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortion is measured by the digital spectrum analyzer.
3. For (EB) area: The specification values given have been measured while using a 240 V-power supply.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Technics®

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1 Before Repair

1. Turn off the power supply. Using a 10 Ω, 10 W resistor, connect both ends of power supply capacitors (C701, C702) in order to discharge the voltage.
2. Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230/240 V.

Power supply voltage	AC 230 V, 50 Hz	AC 240 V, 50 Hz
Consumed current	160-320 mA	160-320 mA

2 Protection Circuitry

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is switched ON.
- Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are shorted, or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined bellow:

1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

Note:

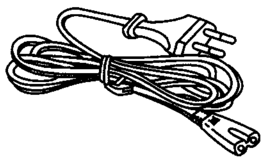
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and ON again.

3 Accessories

- AC mains lead

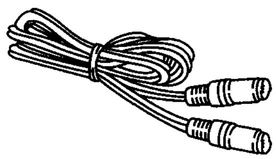
(E) and (EG) areas : (RJA0019-X)......... 1 pc.

(EB) area : (RJA0053-2X)........................1 pc.



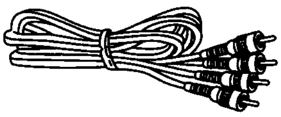
- Amplifier connection cable

(RJL6D001B10)...1 pc.



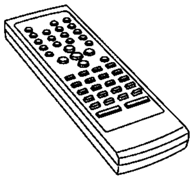
- Stereo connection cable

(SJP2276)..1 pc.



- Remote control transmitter

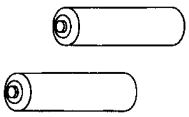
(RAK-SUA11WH)..1 pc.



- Batteries

(R6/LR6, AA, UM-3).. ...2 pcs.

Note: These are available on sales route.



4 Caution for AC Mains Lead

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⟐ or the BSI mark ♡ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral, Brown: Live.
As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.
The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL ⏚ OR COLOURED GREEN OR GREEN/YELLOW.

THIS PLUG IS NOT WATERPROOF—KEEP DRY.

Before use

Remove the connector cover.

How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.
Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

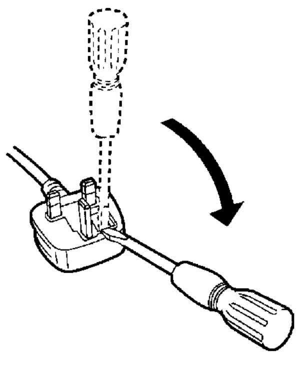
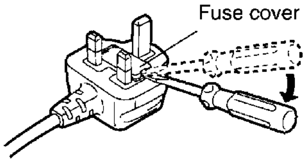


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

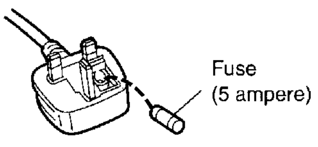
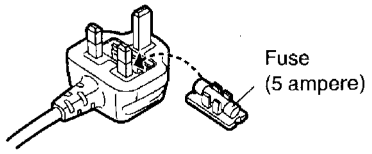
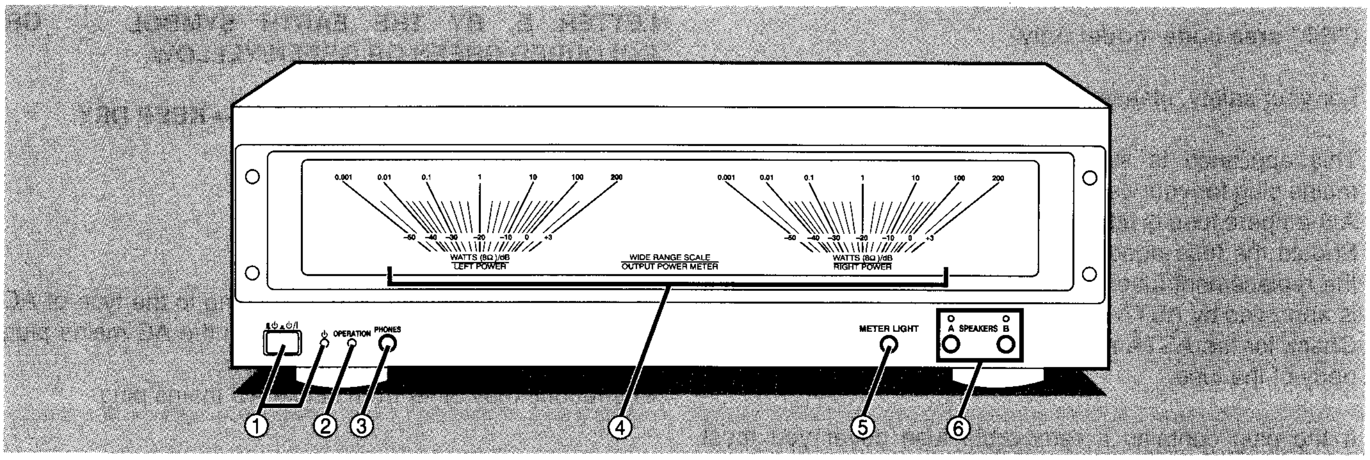


Figure B



5 Operations

■ Front Panel Controls


0.001
0.01
0.1
1
10
100
200
–50
–40
–30
–20
–10
0
+3
WATTS (8Ω)/dB
LEFT POWER
WIDE RANGE SCALE
OUTPUT POWER METER
WATTS (8Ω)/dB
RIGHT POWER
■⏻ ▬⏻/I
⏻
OPERATION
PHONES
METER LIGHT
A SPEAKERS B
①
②
③
④
⑤
⑥

Main units

No. **Name**

① Unit on/off button (■ ⏻ ▬ ⏻/I) and remote standby indicator (⏻)

Use this button to turn the unit on and off.

■ (off): The unit is in standby mode.

▬ (on): The unit is on. The unit can be turned on and off from the control amplifier. When the unit is turned off from the control amplifier, it is in remote standby and the indicator lights.

The unit is still using a small amount of power in the standby and remote standby conditions. Standby uses less power.

② Operation indicator (OPERATION)

③ Headphone jack (PHONES)

No. **Name**

④ Power meters

Indicate the output (watts) of this unit.

When speakers having an impedance of 8 Ω are connected, the output level will be as indicated. However, if the speaker impedance is 16 Ω, the output level will be one-half the indicated value, and if the impedance is 4 Ω, the output level will be double the indicated value.

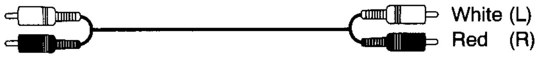
$$\begin{array}{l}\text{Actual}\\\text{output}\end{array} = \begin{array}{l}\text{meter}\\\text{indication}\end{array} \times \frac{8\ (\Omega)}{\text{impedance of the speakers } (\Omega)}$$

⑤ Power meter light button (METER LIGHT)

⑥ Speaker select buttons/indicators (A SPEAKERS B)

■ Connections

Stereo connection cable (1 included with this system)


White (L)
Red (R)

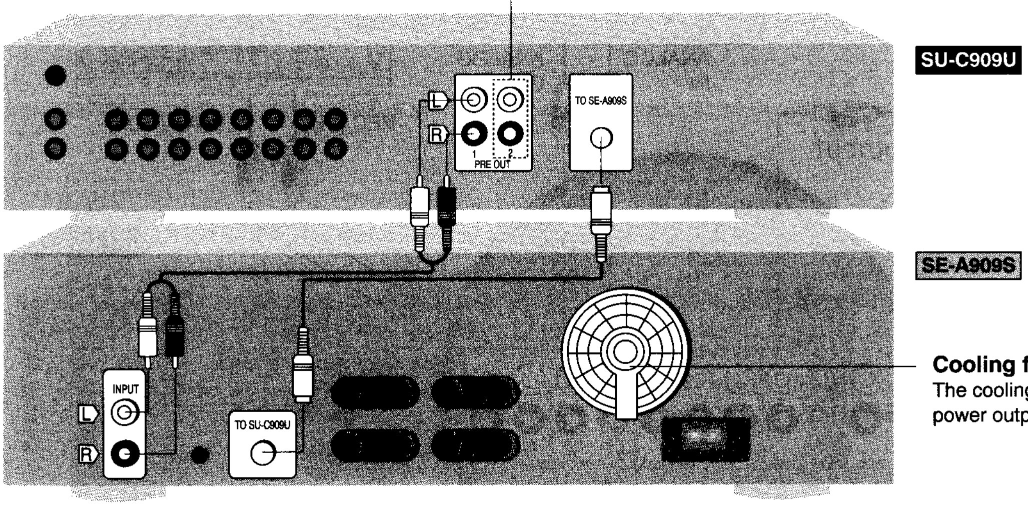
Amplifier connection cable (included)

Control amplifier and power amplifier connections

Make sure that the power supply for all components has been turned off before making any connections.

Connect the AC power supply cord to the amplifier only after all other connections between components have been made.

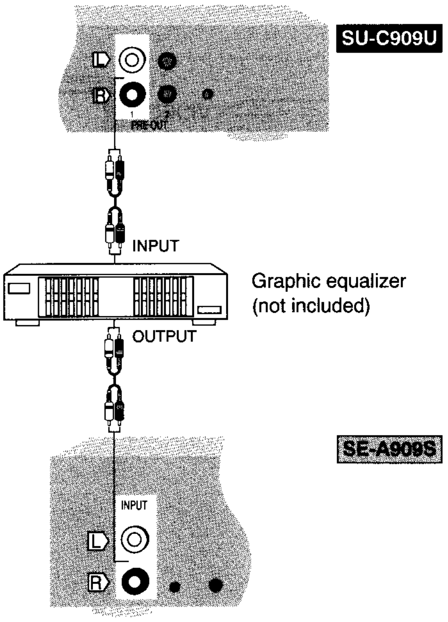
"PRE OUT 2" terminals:
These terminals let you connect a second power amplifier.


SU-C909U
L
R
1
2
PRE OUT
TO SE-A909S
SE-A909S
INPUT
L
R
TO SU-C909U

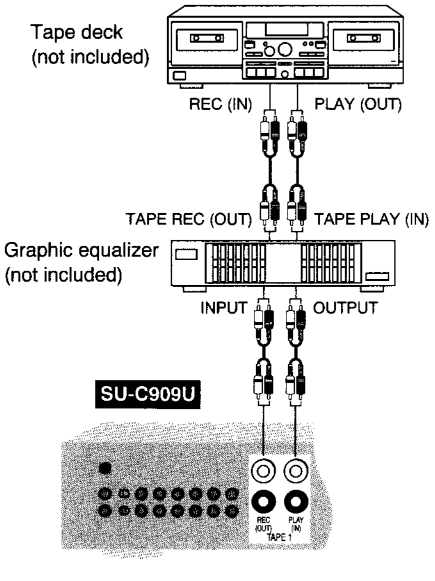
Cooling fan
The cooling fan operates at high power output levels only.

When connecting a graphic equalizer

- **Connect it between the PRE OUT terminals of this unit and the INPUT terminals of the power amplifier.**


SU-C909U
L
R
1
2
PRE OUT
INPUT
Graphic equalizer
(not included)
OUTPUT
SE-A909S
INPUT
L
R

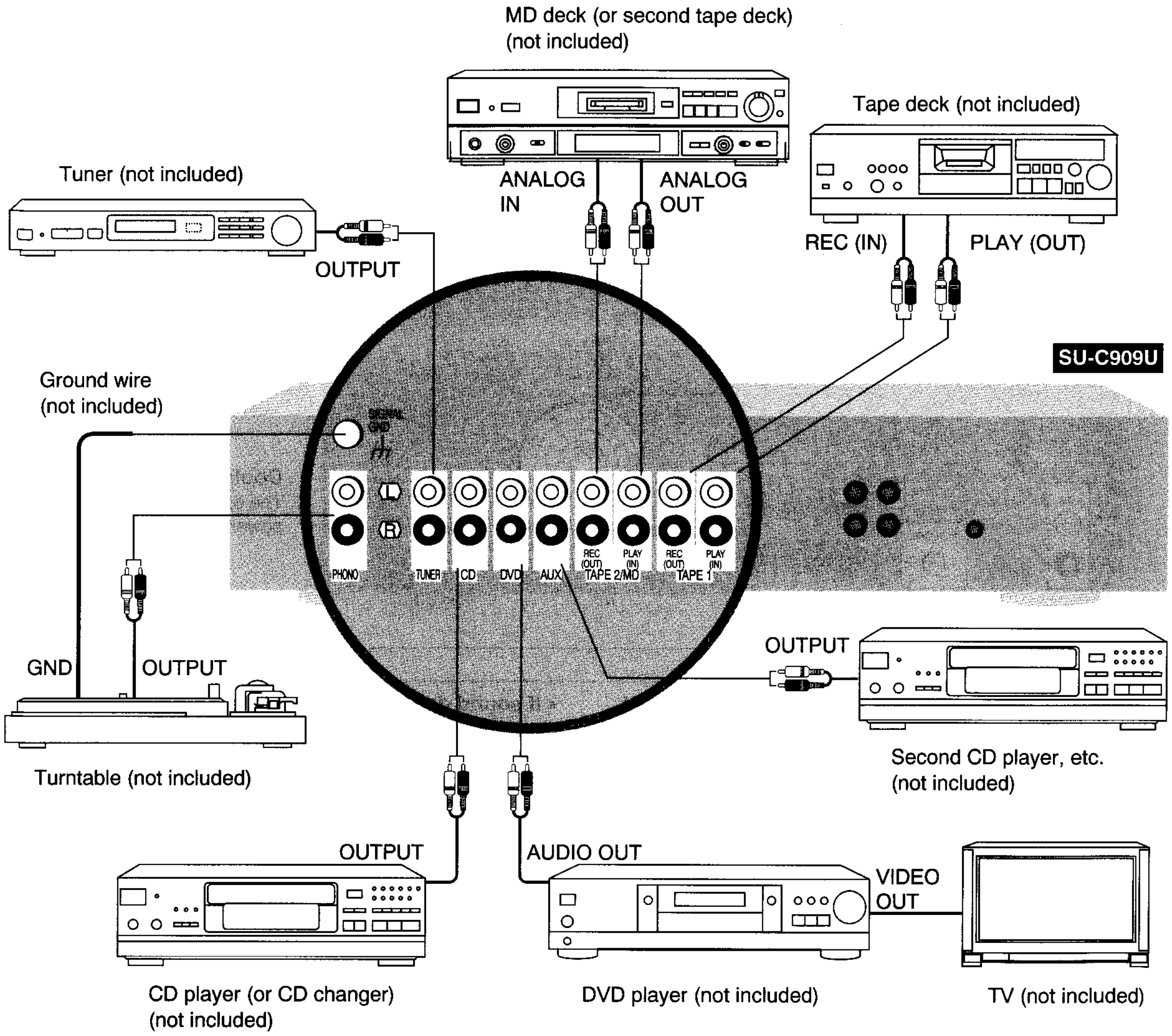
- **If sound deteriorates when the graphic equalizer is connected between the control and power amplifiers.**
Passing the sound through the tape deck can improve sound quality. Connect the power amplifier as shown at the top of the page. Then connect the graphic equalizer and tape deck as shown here.
Press [TAPE MONITOR] on the control amplifier to select TAPE 1.
Set the graphic equalizer's selector to "SOURCE" when playing sources other than the tape deck used in this connection (see the graphic equalizer's manual for details).


Tape deck
(not included)
REC (IN)
PLAY (OUT)
TAPE REC (OUT)
TAPE PLAY (IN)
Graphic equalizer
(not included)
INPUT
OUTPUT
SU-C909U
REC (OUT)
PLAY (IN)
TAPE 1

Stereo connection cable (1 included with this system)

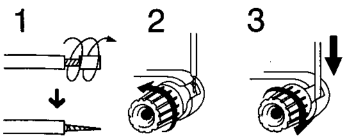
White (L)
Red (R)

Connections to other equipment

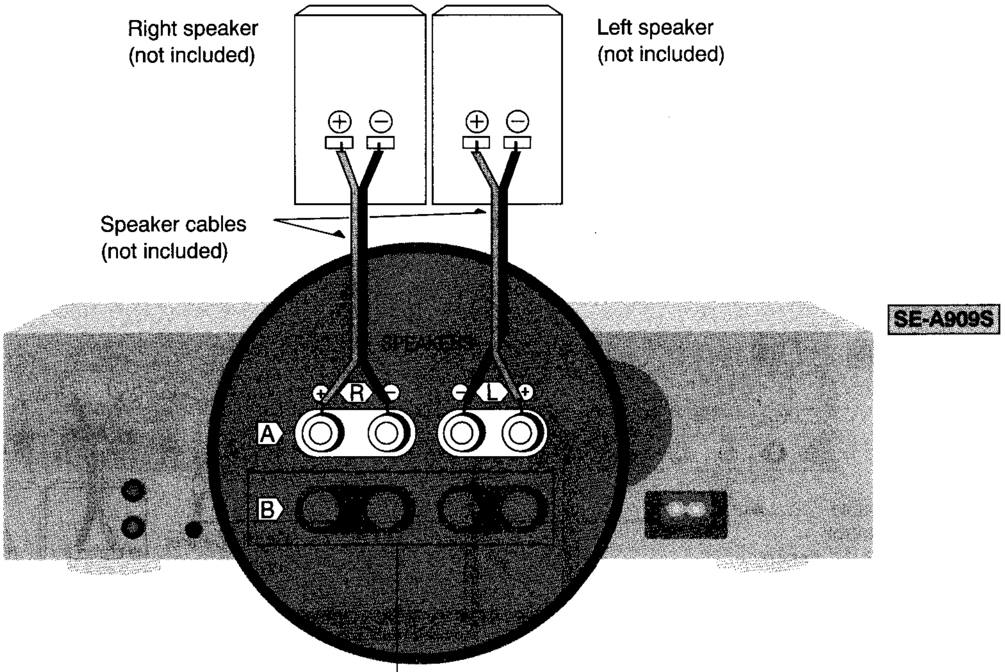

MD deck (or second tape deck)
(not included)
ANALOG IN
ANALOG OUT
Tape deck (not included)
REC (IN)
PLAY (OUT)
Tuner (not included)
OUTPUT
SU-C909U
Ground wire
(not included)
SIGNAL GND
L
R
PHONO
TUNER
CD
DVD
AUX
REC (OUT)
PLAY (IN)
TAPE 2/MD
REC (OUT)
PLAY (IN)
TAPE 1
GND
OUTPUT
Turntable (not included)
OUTPUT
Second CD player, etc.
(not included)
OUTPUT
AUDIO OUT
VIDEO OUT
CD player (or CD changer)
(not included)
DVD player (not included)
TV (not included)

Connecting the speakers

Connecting the speaker cables



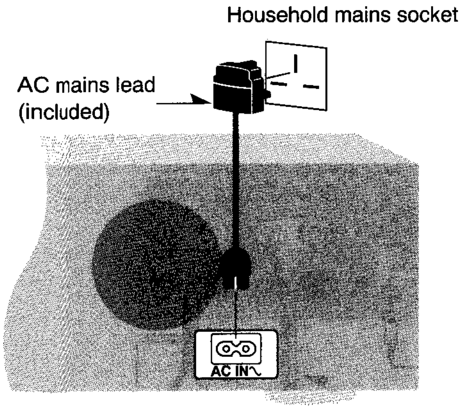
Caution
To prevent damage to circuitry, never short-circuit the positive (+) and negative (–) speaker wires.


Right speaker
(not included)
Left speaker
(not included)
Speaker cables
(not included)
SE-A909S
SPEAKERS
R
L
A
B

Speaker impedance
When only the "A" or only the "B" terminals are used: 4–16 Ω
When the "A" and "B" terminals are used simultaneously: 8–16 Ω

"B" terminals
For connection to a second pair of speakers.

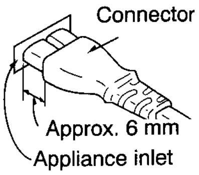
Connecting the power supply


Household mains socket
AC mains lead
(included)
AC IN

BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD BEFORE CONNECTION.

Connect the AC mains lead only after all other connections have been made.

Insertion of connector
Even when the connector is perfectly inserted, depending on the type of inlet used, the front part of the connector may jut out as shown in the drawing.
However there is no problem using the unit.


Connector
Approx. 6 mm
Appliance inlet

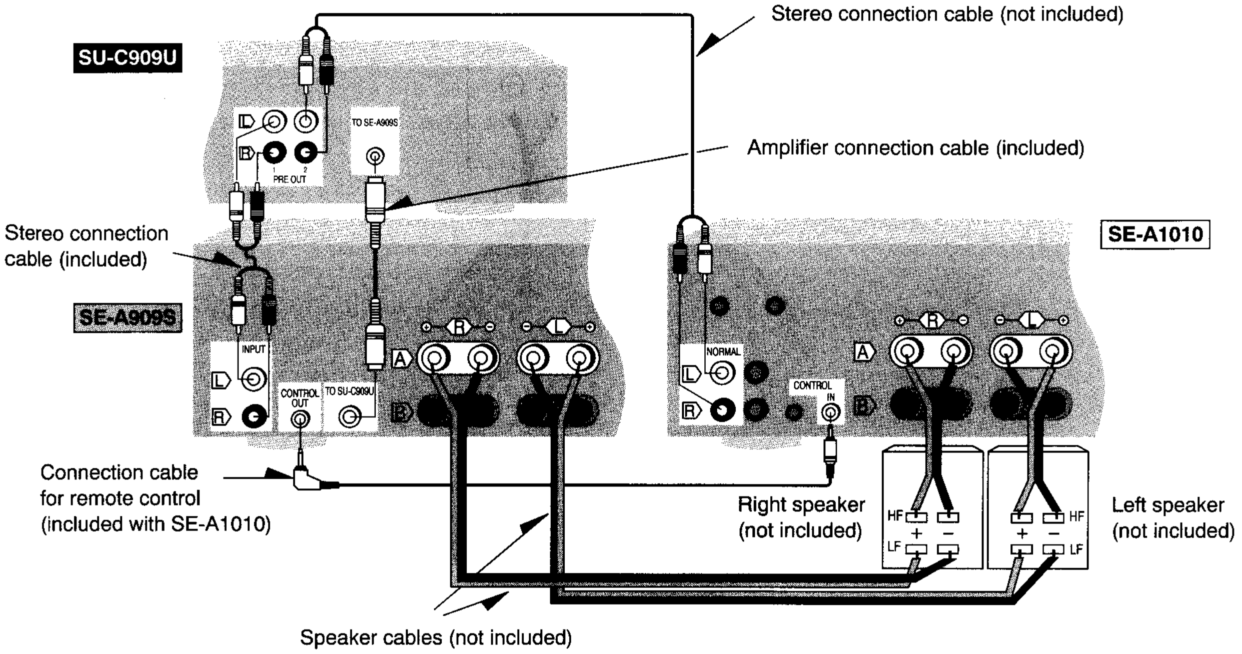
Multi-amplifier system setup

The two PRE OUT terminals on the control amplifier allow you to connect a second power amplifier. This kind of setup with the Technics SE-A1010 (not included) unleashes a multitude of system configurations which will give you better control over sound quality in the listening ambient and gain clearer sound than ever before.

This explains how to connect a Technics SE-A1010.

To use one amplifier for the high region and one for the low region

This illustration shows connection that allows control of the treble range level with [LEVEL CONTROL] on SE-A1010. If you would rather have control over the bass range level, connect SE-A1010 to the LF terminals on the speakers.
(See the SE-A1010's operating instructions for details.)


SU-C909U
L
R
1
2
PRE OUT
TO SE-A909S
SE-A909S
INPUT
L
R
CONTROL OUT
TO SU-C909U
R
L
A
B
SE-A1010
NORMAL
L
R
CONTROL IN
R
L
A
B
HF
+ −
LF

Stereo connection cable (not included)

Amplifier connection cable (included)

Stereo connection cable (included)

Connection cable for remote control (included with SE-A1010)

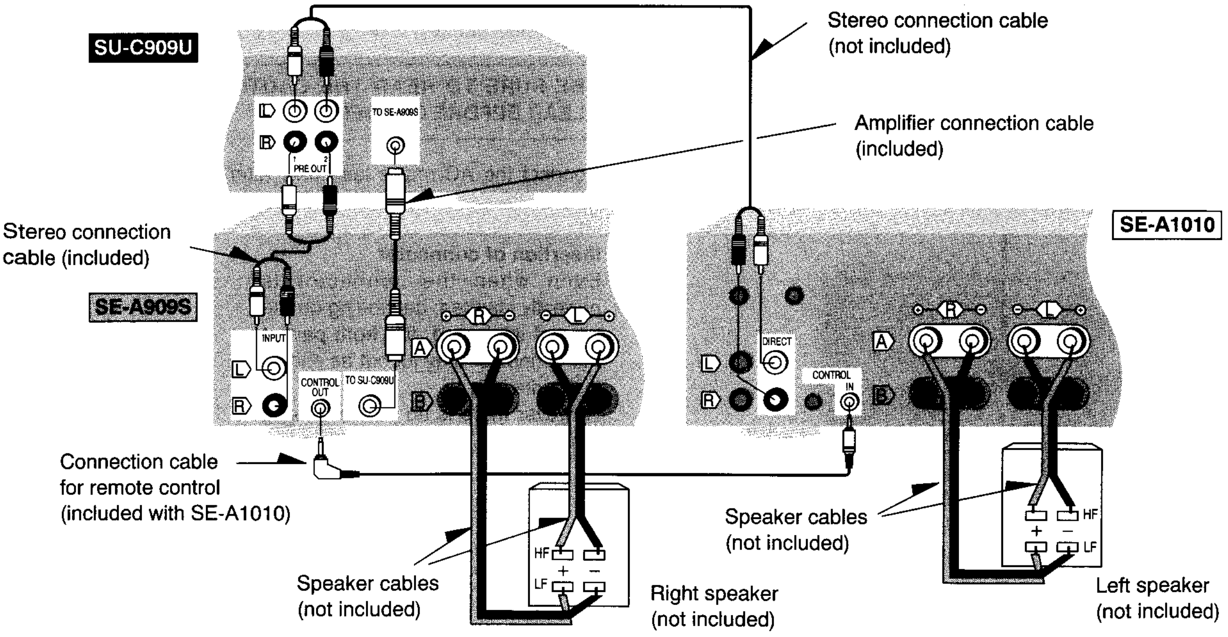
Right speaker (not included)

Left speaker (not included)

Speaker cables (not included)

To use as left/right monaural amplifiers

Left and right channel separation will be better and sound orientation improved.


SU-C909U
L
R
1
2
PRE OUT
TO SE-A909S
SE-A909S
INPUT
L
R
CONTROL OUT
TO SU-C909U
R
L
A
B
SE-A1010
DIRECT
L
R
CONTROL IN
R
L
A
B
HF
+ −
LF

Stereo connection cable (not included)

Amplifier connection cable (included)

Stereo connection cable (included)

Connection cable for remote control (included with SE-A1010)

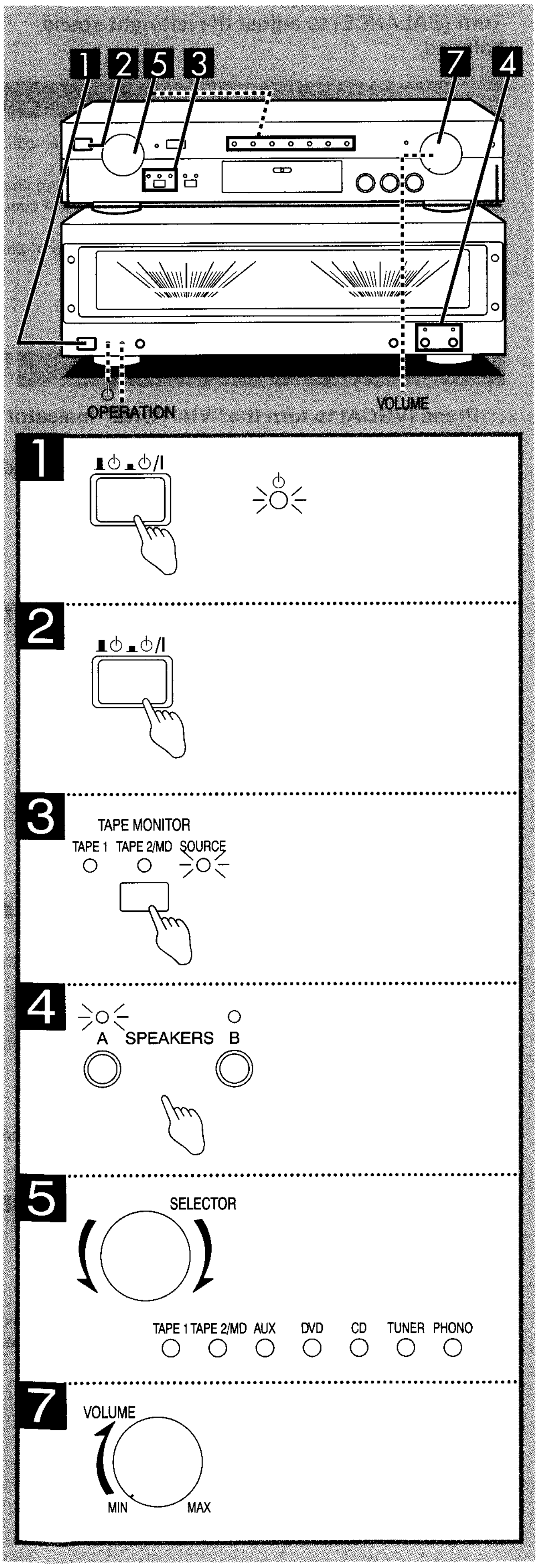
Speaker cables (not included)

Speaker cables (not included)

Right speaker (not included)

Left speaker (not included)

■ Listening



Preparation

Before operation, set [VOLUME] to the "MIN" position.

1 Press [▮ ⏻ ▬ ⏻/I] of the power amplifier to the " ▬ ⏻/I" position.

" ⏻ " indicator will light up.

2 Press [▮ ⏻ ▬ ⏻/I] of the control amplifier.

Both amps will turn ON and, about 4 seconds later, the "OPERATION" indicator on the power amplifier will light up.
Once the control amplifier has been turned on, both amplifiers can then be turned ON or OFF simultaneously. Use [▮ ⏻ ▬ ⏻/I] on the control amplifier when turning the system on or off.

3 Press [TAPE MONITOR] so that the "SOURCE" indicator lights up.

Each time the button is pressed, the indicator will change as follows.

TAPE 1 → TAPE 2/MD → SOURCE
↑_______________________|

4 Select the speakers to be used.

The corresponding speaker indicator will illuminate.

5 Turn [SELECTOR] to select the desired source.

The indicator which corresponds to the selected input source will light up.

TAPE 1: Tape deck
TAPE 2/MD: Second tape deck or MD deck
AUX: Component connected to the "AUX" terminals
DVD: DVD player
CD: CD player (or CD changer)
TUNER: Tuner
PHONO: Turntable

6 Start the desired source.

Refer to the appropriate operating instructions for details.

7 Adjust the volume.

Operation indicator (OPERATION)

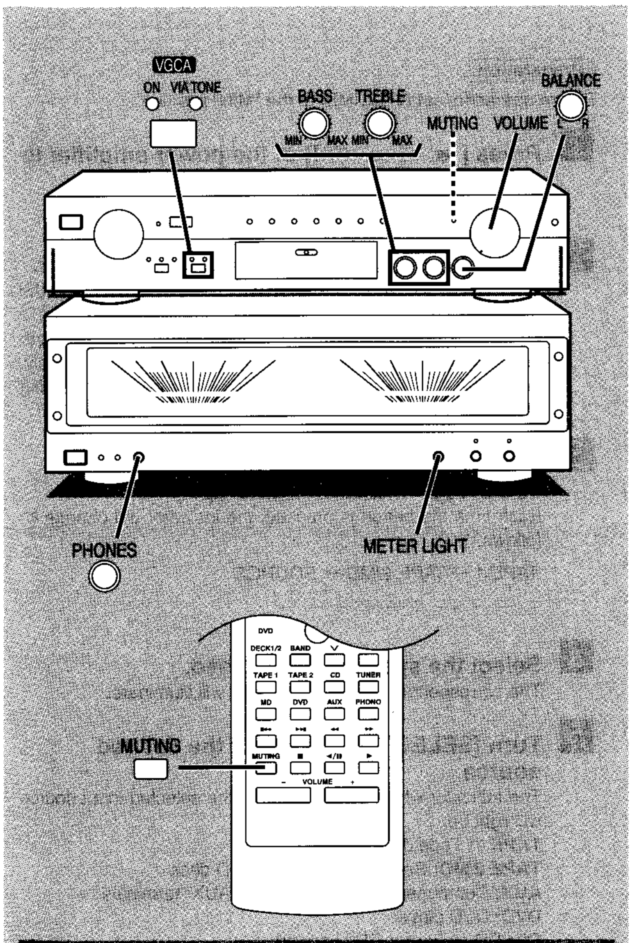
This indicator illuminates when the power amplifier is in the normal operating condition.
If the (+) and (–) wires of the speaker cables are shorted, or if a circuit abnormality such as DC voltage in the power output to the speakers is detected, the protection circuit will operate and the "OPERATION" indicator will turn off.

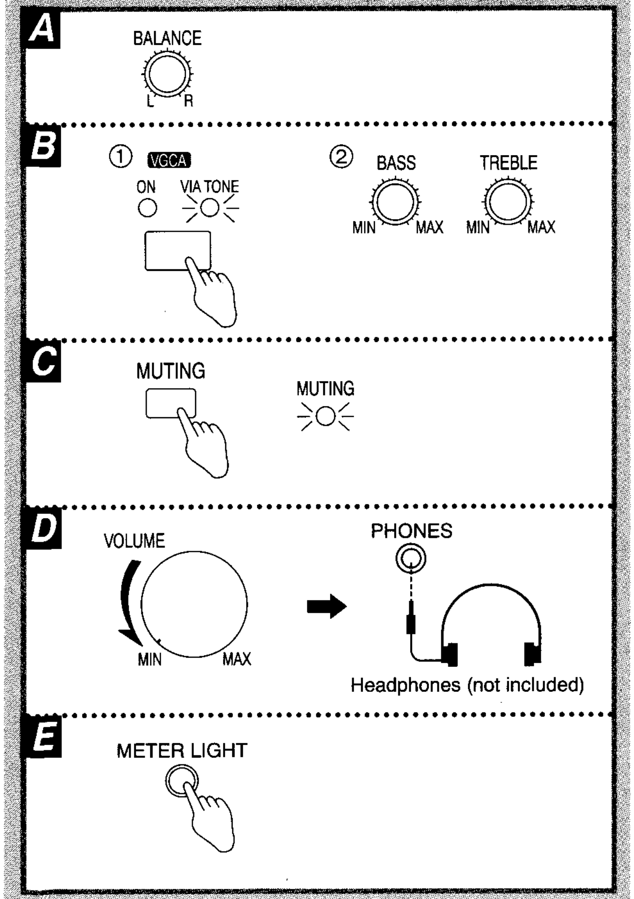
Using this system with SE-A1010

If an SE-A1010 power amplifier is connected as described in the connections section, it will also be switched between on and standby the same as this system's SE-A909S when power operations are done on the control amplifier (step 2).

Note

This system's amplifiers will both be turned off if the power amplifier is turned off, but you will not be able to turn them on again with the remote control when in this condition, and further, if an SE-A1010 is connected, it will remain on (use its power button to turn it off).


VGCA
ON VIA TONE
BASS TREBLE
MIN MAX MIN MAX
MUTING VOLUME
L R
BALANCE
PHONES
METER LIGHT
MUTING
DVD
DECK1/2 BAND
TAPE 1 TAPE 2 CD TUNER
MD DVD AUX PHONO
MUTING
VOLUME


A
BALANCE
L R
B
① VGCA
ON VIA TONE
② BASS TREBLE
MIN MAX MIN MAX
C
MUTING
MUTING
D
VOLUME
MIN MAX
PHONES
Headphones (not included)
E
METER LIGHT

To adjust the sound balance A

Turn [BALANCE] to adjust the left/right sound balance.

The VGCA circuit

This unit features a state-of-the-art variable gain control amplifier (VGCA).
Rather than reducing the volume of the input signal and then amplifying it as was done in the past, this unit uses the VGCA circuit to change the gain of the amplifier itself.
This has resulted in a 10 dB improvement on the S/N ratio of past models.
Leave VGCA on during normal use.
VGCA is switched on at the time of purchase.

To adjust the tone quality B

① Press [VGCA] to turn the "VIA TONE" indicator on.

② Turn [BASS] to adjust the low-frequency sound. Turn [TREBLE] to adjust the high-frequency sound.

Press again to turn VGCA on again. Sound is heard unadjusted.

To mute the sound level C

Remote control only

Press [MUTING].
The "MUTING" indicator on this unit will light up.

Press once again to return to the previous volume level.
The "MUTING" indicator will turn off.

Note
Muting is also canceled when the unit is turned off.

To listen through headphones D

Decrease the volume at the control amplifier, and connect the headphones.
Plug type: 6.3 mm stereo

If sound from speakers is not wanted, press SPEAKER [A] and/or [B] to turn off the speaker indicators.

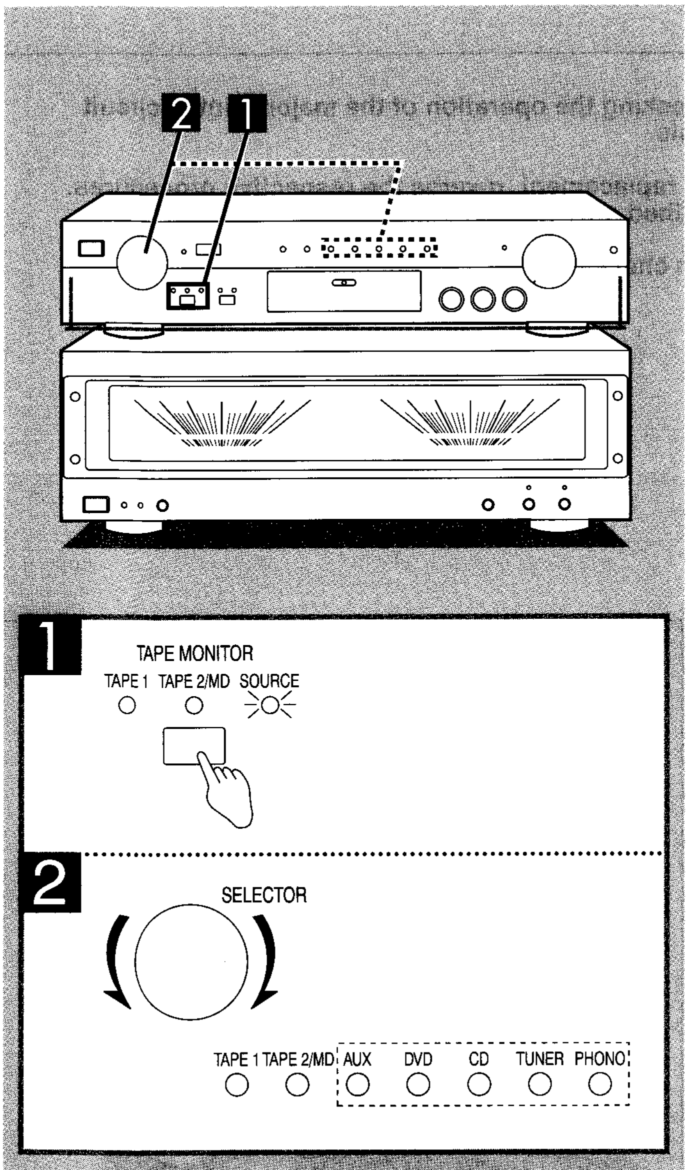
Note
Avoid listening for prolonged periods of time to prevent hearing damage.

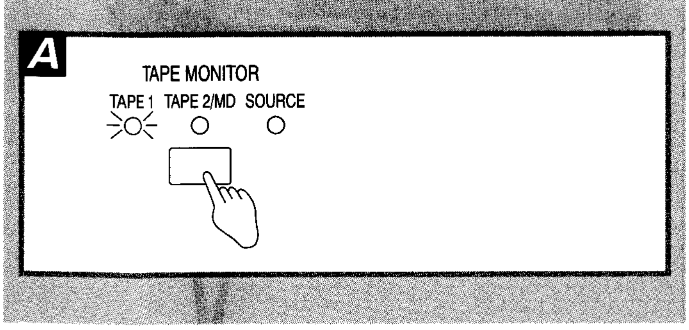
Turning the power meter light on/off E

Press [METER LIGHT].

Note
If the unit is turned off while the power meter light is on, a small click will be heard a few seconds later. This is an automatic adjustment by the internal mechanism, not an indication of malfunction.

Recording





Connect the tape deck or MD deck to either of the “REC (OUT) (TAPE 1 or TAPE 2/MD)” terminals on the back of the unit.

1 Press [TAPE MONITOR] so that the “SOURCE” indicator lights up.

2 Turn [SELECTOR] to select the source to be recorded.

AUX: Equipment connected to the AUX terminal
DVD: DVD player
CD: CD player (or CD changer)
TUNER: Tuner
PHONO: Turntable

3 Begin recording on tape deck or MD deck.

Follow your equipment’s operating instructions.

4 Begin the source to be recorded.

Note

Some DVD players need special settings before recording. See the DVD player’s operating instructions for details.

Recording between TAPE 1 and TAPE 2/MD

You can record from TAPE 1 to TAPE 2/MD and vice versa.

From TAPE 1 to TAPE 2/MD

① Press [TAPE MONITOR] so “SOURCE” lights.
② Turn [SELECTOR] so “TAPE 1” lights.
③ Start recording on the recording deck and playback on the playback deck.

From TAPE 2/MD to TAPE 1

In step ②, turn [SELECTOR] so “TAPE 2/MD” lights.

To check a recording A

With a tape deck with 3 heads, it is possible to monitor the sound recorded.

Press [TAPE MONITOR] to select “TAPE 1” or “TAPE 2/MD” and set the monitor switch on the tape deck to “TAPE”.

TAPE 1: To monitor the deck connected to the TAPE 1 terminals.
TAPE 2/MD: To monitor the deck connected to the TAPE 2/MD terminals.

Note

When finished using the tape monitor, press [TAPE MONITOR] again to select “SOURCE”.

6 Operation Checks and Component Replacement Procedures

NOTE **1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**

2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

3. Select item from the following index when checks or replacement are required.

• Contents

■ Checking Procedures for each P.C.B.

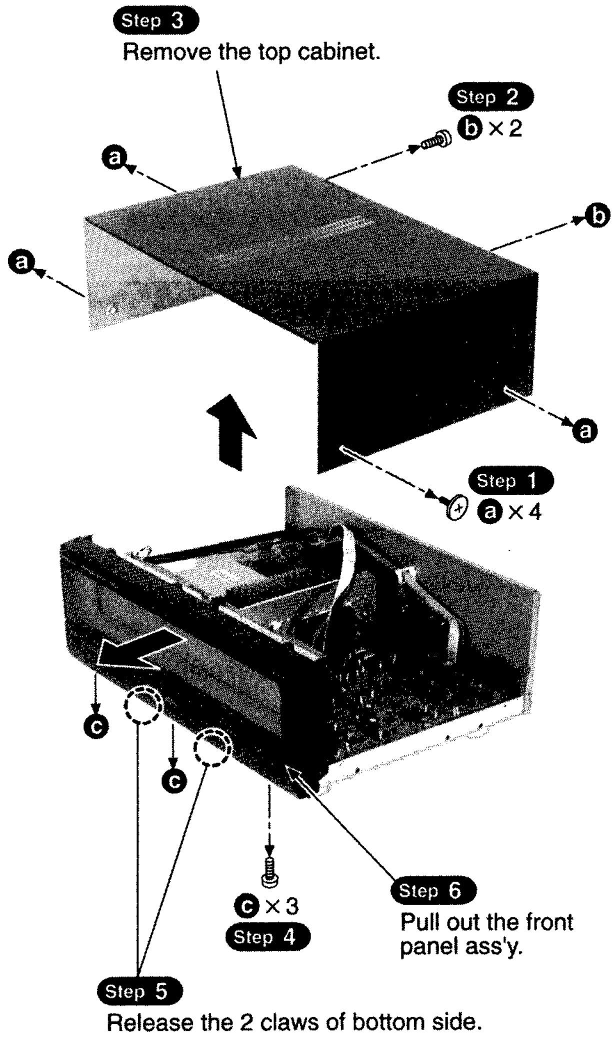
1. Checking for the main P.C.B..

■ Main Component Replacement Procedures

1. Replacement for the meter ass'y.
2. Replacement for the power IC and regulator transistor.
3. Replacement for the fan motor.

■ Checking Procedures for each P.C.B.

1. Checking for the main P.C.B.



Step 1
a × 4

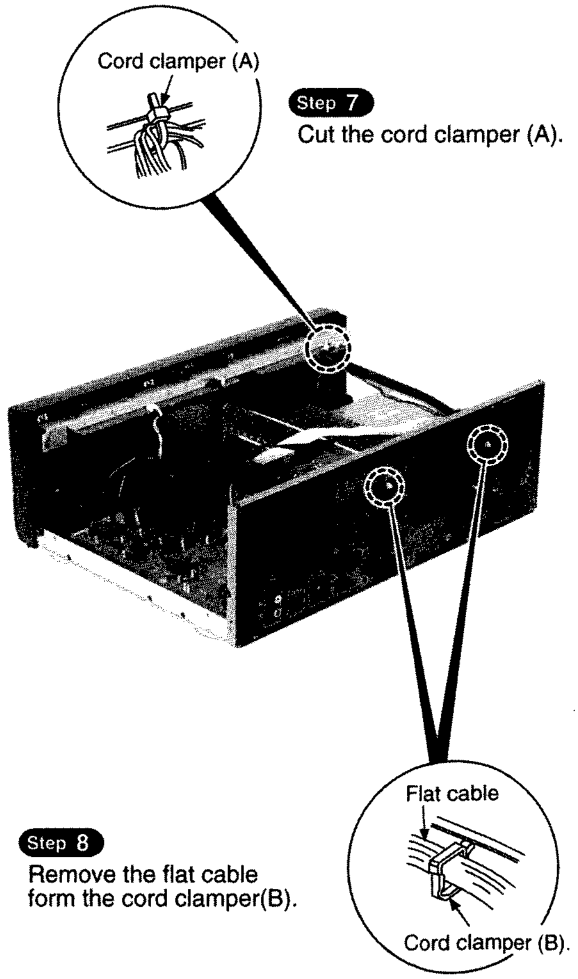
Step 2
b × 2

Step 3
Remove the top cabinet.

Step 4
c × 3

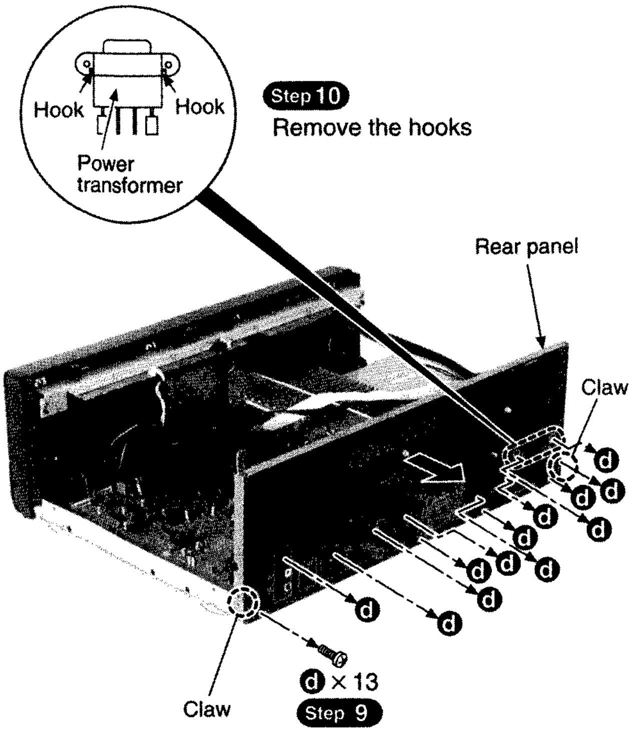
Step 5
Release the 2 claws of bottom side.

Step 6
Pull out the front panel ass'y.



Step 7
Cut the cord clamper (A).

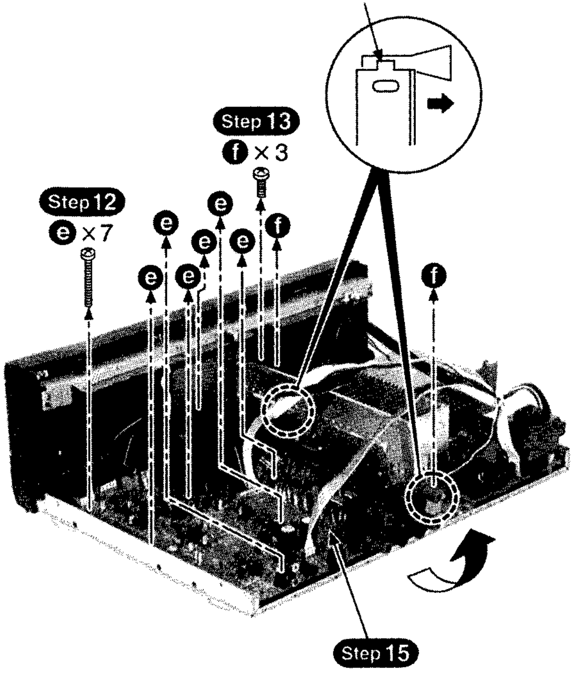
Step 8
Remove the flat cable form the cord clamper(B).


Hook
Hook
Power transformer
Rear panel
Claw
d
d × 13
Claw

Step 10
Remove the hooks

Step 9

Step 11
Release the 2 claws, and then remove the rear panel.



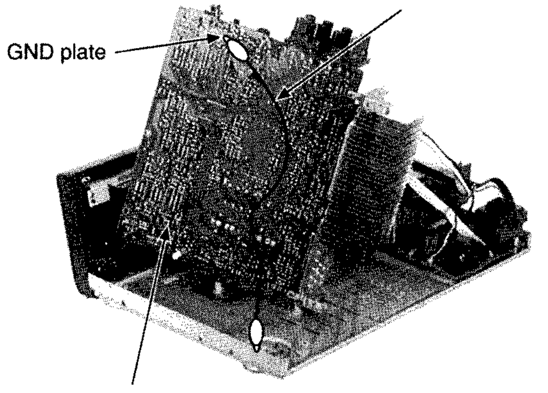
Step 14
Release the hook.

Step 13

Step 12

Step 15
Raise the main P.C.B..

- **Check the main P.C.B. as shown below.**


GND plate
Main P.C.B.

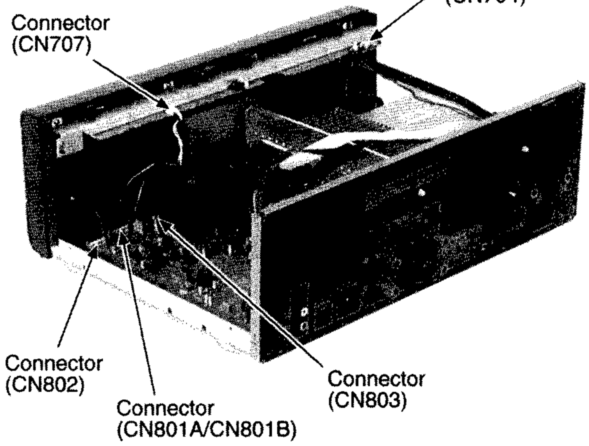
Step 16
Connect the lead wire.

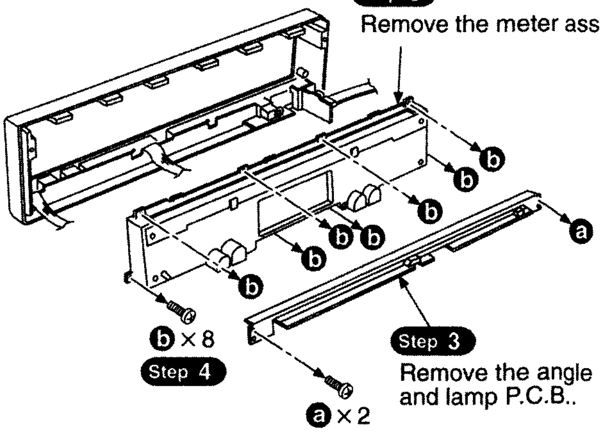
■ Main Component Replacement Procedures

1. Replacement for the meter ass'y

- Follow the Step 1 ~ Step 7 of the item 1 in checking procedure for each P.C.B..

Step 1
Remove the 5 connectors.


Connector (CN704)
Connector (CN707)
Connector (CN802)
Connector (CN801A/CN801B)
Connector (CN803)



Step 5
Remove the meter ass'y.

Step 4

Step 3
Remove the angle and lamp P.C.B..

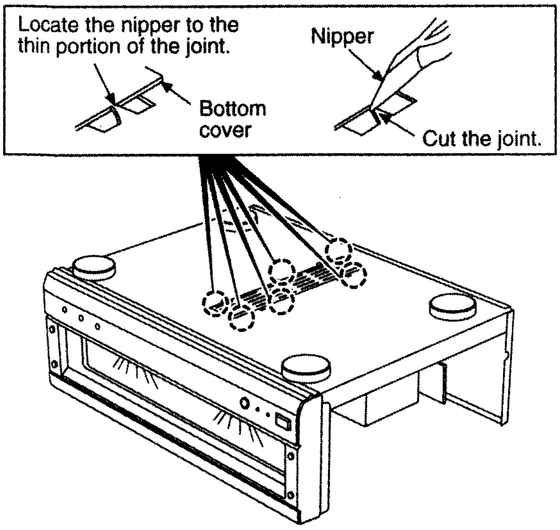
Step 2

2. Replacement for the power IC and regulator transistor

- Follow the **Step 1** ~ **Step 3** of the item 1 in checking procedure for each P.C.B..

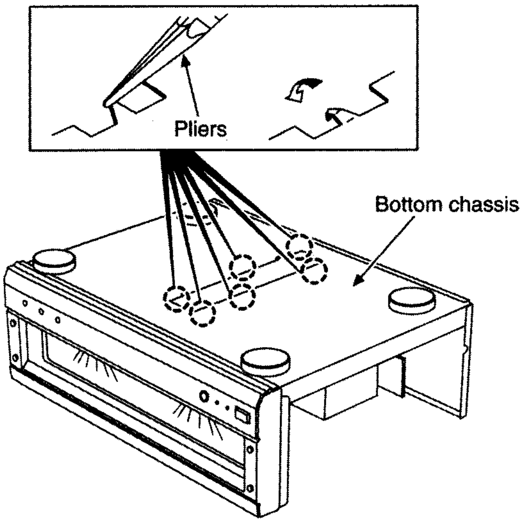
Step 1

Cut the joints as shown below. (6 portions)


Locate the nipper to the thin portion of the joint.
Bottom cover
Nipper
Cut the joint.

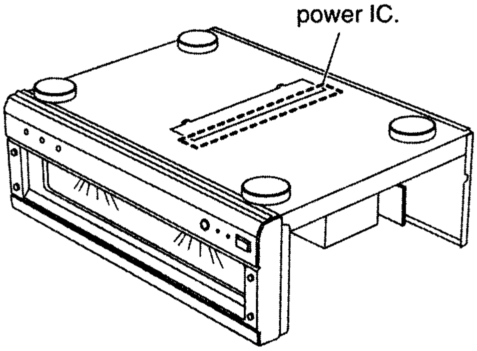
Step 2

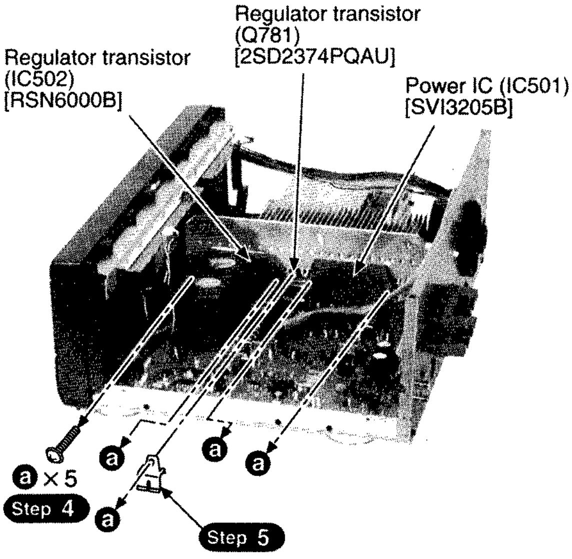
Fold the joints. (6 portions)


Pliers
Bottom chassis

Step 3

Unsolder the terminals of power IC.




Regulator transistor (IC502) [RSN6000B]
Regulator transistor (Q781) [2SD2374PQAU]
Power IC (IC501) [SVI3205B]
ⓐ × 5
Step 4
ⓐ

Step 5

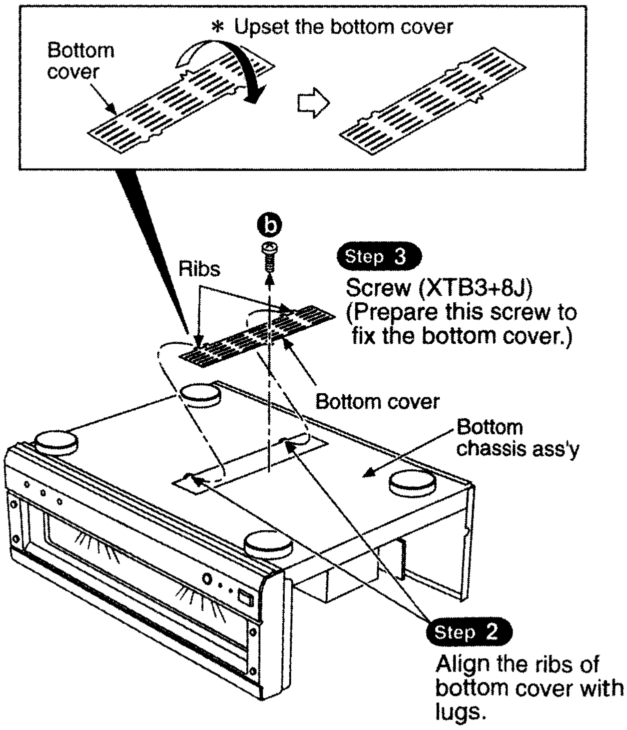
Remove the transistor holder.

NOTE

1. After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002) between the heat sink and the power IC or regulator transistor (Radiation of power IC and regulator transistor).
2. Tighten enough the screws (ⓐ) after replacing the power IC and regulator transistor. Otherwise, the heat radiation works little.

Installation of the bottom cover after replacement

Step 1


* Upset the bottom cover
Bottom cover
Ribs
ⓑ
Bottom cover
Bottom chassis ass'y

Step 3

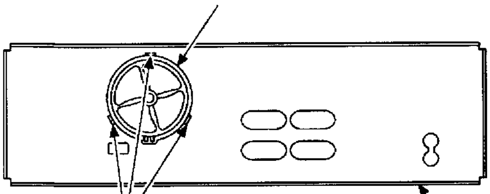
Screw (XTB3+8J) (Prepare this screw to fix the bottom cover.)

Step 2

Align the ribs of bottom cover with lugs.

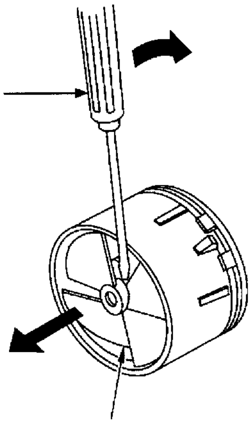
3. Replacement for the fan motor

- Follow the **Step 1** ~ **Step 3** , **Step 8** ~ **Step 11** of the item 1 in checking procedure for each P.C.B..

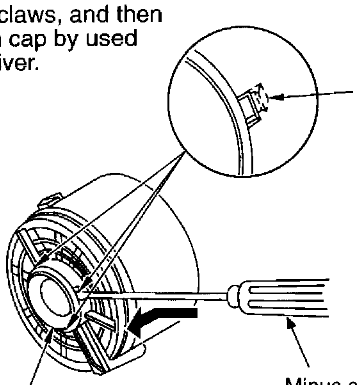

Fan case
Rear panel

Step 1
Release the 3 claws.

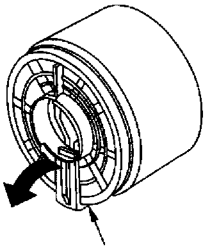
Step 2
Insert a minus screwdriver at the foot of the fan.


Minus screwdriver
Fan

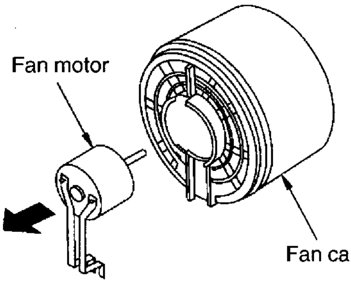
Step 3
Release the 3 claws, and then remove the fan cap by used minus screwdriver.


Claw
Minus screwdriver
Fan cap

Step 4
Remove the fan terminal cap in the direction of arrow.

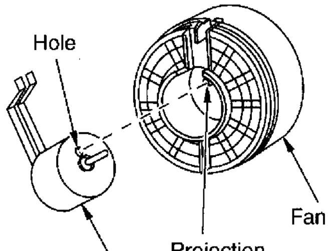

Fan terminal cap

Step 5
Remove the fan motor from the fan case.

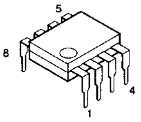
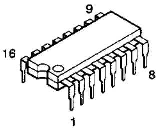
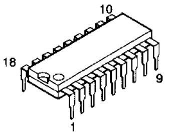
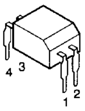
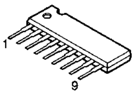
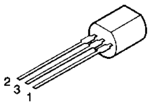
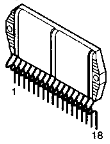
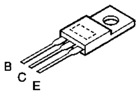
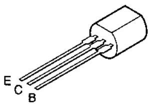
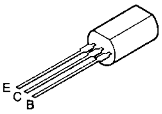
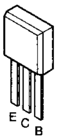
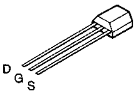
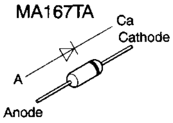
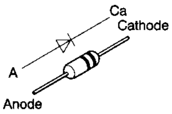
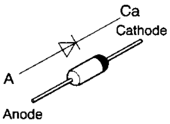
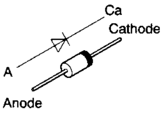
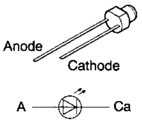
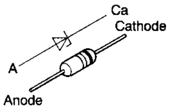
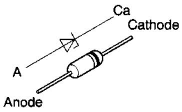

Fan motor
Fan case

Installation of the fan motor after replacement

- When mounting the motor, align the fan casing's projection with the hole of the fan motor.


Hole
Fan case
Projection
Fan motor

7 Type Illustration of ICs, Transistors and Diodes

M5218AP NJM4580DD 	UPD4027BC 	AN7062N 	0N3131R 	BA6138 	AN78L05TA 
RSN6000B SVI3205B 	2SD2374PQAU 	2SA992EFPTA 2SA1123RSTTA 2SC2631RSTTA 	2SC3940AQSTA 2SA1534AQRTA 		2SA1309ARTA 2SC3311ARTA UN4111TA UN4215TA
2SJ105GRYTA 2SK330GRYTA 	MA165TA MA29WATA MA167TA  Ca Cathode A Anode	MA167ATA 1SS291TA  Ca Cathode A Anode	1SR35200TB  Ca Cathode A Anode	P300DLF  Ca Cathode A Anode	SLR-305VC  Anode Cathode A Ca
 Ca Cathode A Anode	MA4036MTA MA4056MTA MA4068LTA	 Ca Cathode A Anode	MA4100MTA MA4140MTA MA4160MTA MA4220MTA		

8 Schematic Diagram

8.1. Schematic Diagram Notes

- **This schematic diagram may be modified at any time with the development of new technology.**

Notes:

S801:	Unit on/off switch (▮ ⏻ ▬ ⏻ /I)
S802:	Speaker select switch (SPEAKER A)
S803:	Speaker select switch (SPEAKER B)
S804:	Power meter light switch (METER LIGHT)
VR909:	Power meter adjustment VR (L ch)
VR910:	Power meter adjustment VR (R ch)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

  No mark : Power ON

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

  When replacing any of components, be sure to use only manufacturers specified parts shown in the parts list.

- **Caution!**

  IC and LSI are sensitive to static electricity.

  Secondary trouble can be prevented by taking care during repair.

  Cover the parts boxes made of plastics with aluminum foil.

  Ground the soldering iron.

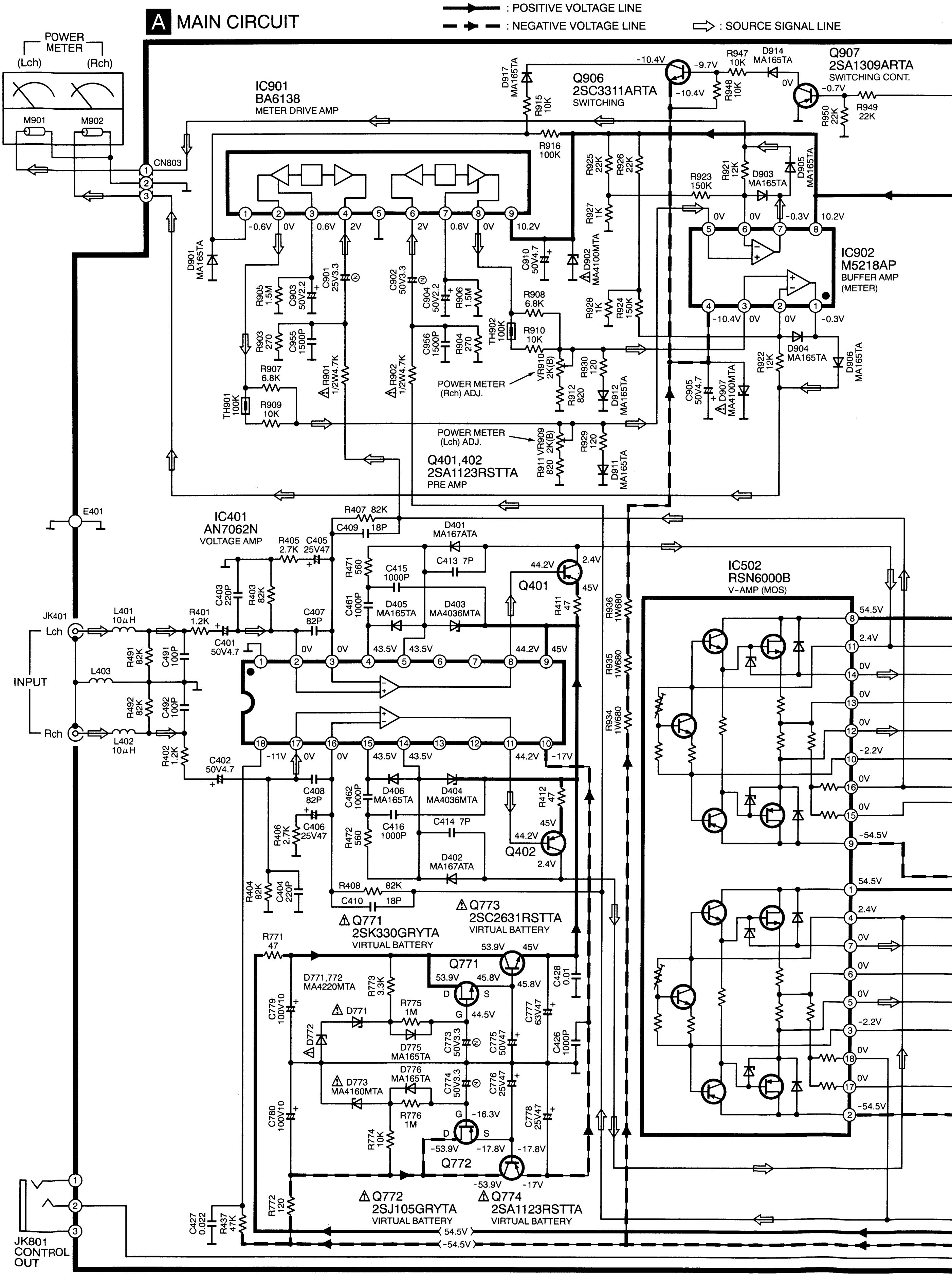
  Put a conductive mat on the work table.

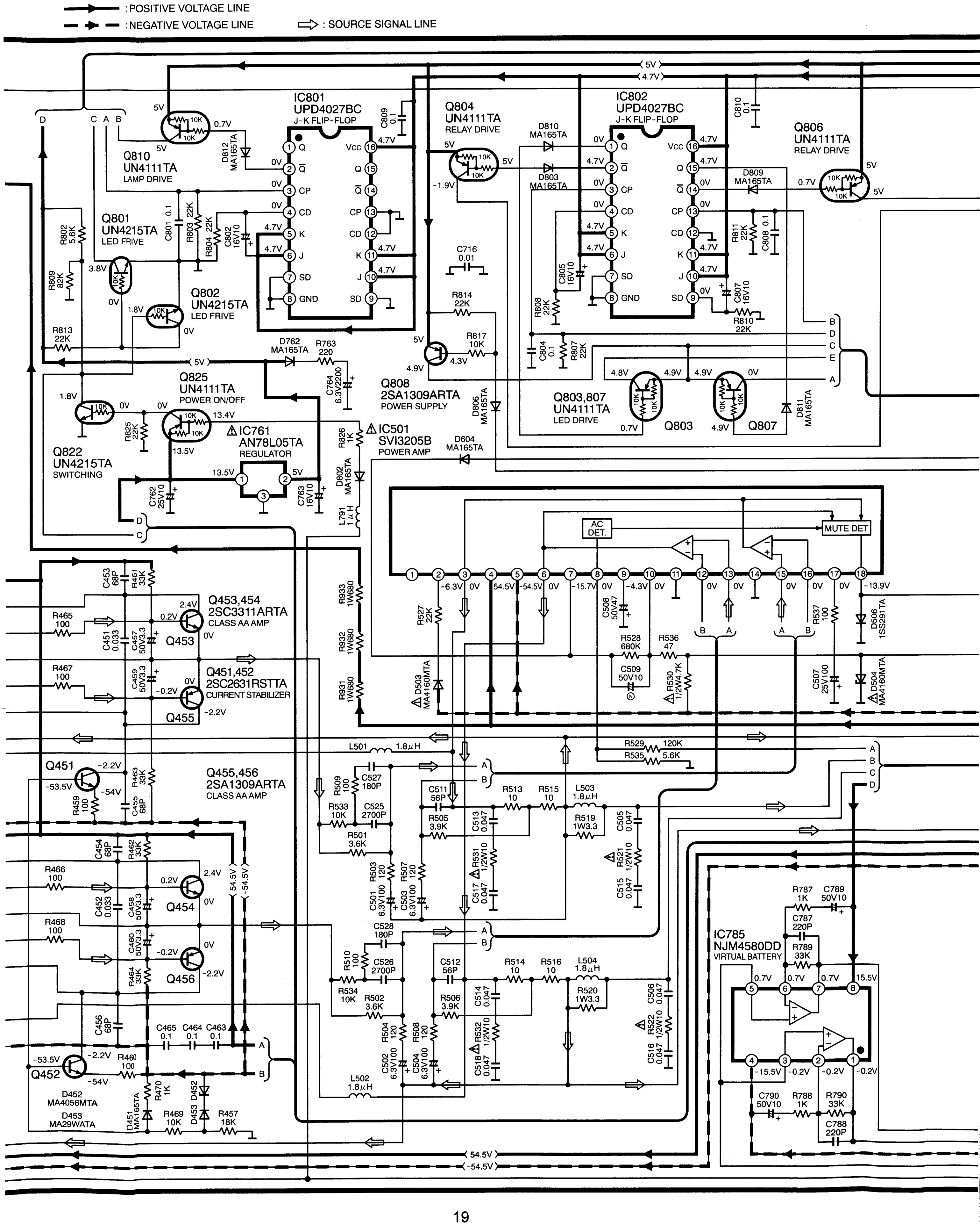
  Do not touch the legs of IC or LSI with the fingers directly.

- Voltage and signal line

━━▶━━	: Positive voltage line
■■▶■■	: Negative voltage line
⇨	: Source signal line

8.2. Schematic Diagram


A MAIN CIRCUIT
: POSITIVE VOLTAGE LINE
: NEGATIVE VOLTAGE LINE
: SOURCE SIGNAL LINE
POWER METER
(Lch)
(Rch)
M901
M902
CN803
IC901
BA6138
METER DRIVE AMP
D917 MA165TA
R915 10K
Q906
2SC3311ARTA
SWITCHING
-10.4V
-9.7V
R947 10K
D914 MA165TA
Q907
2SA1309ARTA
SWITCHING CONT.
0V
-0.7V
R948 10K
R949 22K
R950 22K
R916 100K
R925 22K
R926 22K
R923 150K
R921 12K
D903 MA165TA
D905 MA165TA
R927 1K
D901 MA165TA
D902 MA4100MTA
C910 50V4.7
-0.6V
0.6V
2V
10.2V
-0.3V
IC902
M5218AP
BUFFER AMP
(METER)
R905 1.5M
C903 50V2.2
C901 25V3.3
C902 50V3.3
C904 50V2.2
R906 1.5M
R908 6.8K
R928 1K
R924 150K
R903 270
C955 1500P
C956 1500P
R904 270
TH902 100K
R910 10K
VR910 2K(B)
R930 120
R922 12K
D904 MA165TA
D906 MA165TA
R907 6.8K
R901 1/2W4.7K
R902 1/2W4.7K
POWER METER (Rch) ADJ.
R912 820
D912 MA165TA
C905 50V4.7
D907 MA4100MTA
TH901 100K
R909 10K
POWER METER (Lch) ADJ.
VR909 2K(B)
R929 120
R911 820
D911 MA165TA
Q401,402
2SA1123RSTTA
PRE AMP
E401
IC401
AN7062N
VOLTAGE AMP
R407 82K
C409 18P
D401 MA167ATA
R405 2.7K
C405 25V47
R471 560
C415 1000P
C413 7P
44.2V
2.4V
Q401
45V
C403 220P
R403 82K
C461 1000P
D405 MA165TA
D403 MA4036MTA
R411 47
R936 1W680
R935 1W680
R934 1W680
JK401
Lch
L401 10μH
R401 1.2K
C407 82P
C401 50V4.7
43.5V
R491 82K
C491 100P
L403
INPUT
R492 82K
C492 100P
Rch
L402 10μH
R402 1.2K
C402 50V4.7
-11V
-17V
C408 82P
C462 1000P
D406 MA165TA
D404 MA4036MTA
R412 47
C406 25V47
R406 2.7K
R472 560
C416 1000P
C414 7P
Q402
D402 MA167ATA
R404 82K
C404 220P
R408 82K
C410 18P
Q771
2SK330GRYTA
VIRTUAL BATTERY
Q773
2SC2631RSTTA
VIRTUAL BATTERY
R771 47
53.9V
45.8V
D771,772 MA4220MTA
R773 3.3K
C428 0.01
C779 100V10
D771
R775 1M
44.5V
C777 63V47
D772
D775 MA165TA
C773 50V3.3
C775 50V47
C426 1000P
D776 MA165TA
D773 MA4160MTA
C774 50V3.3
C776 25V47
C780 100V10
R776 1M
-16.3V
C778 25V47
R774 10K
-53.9V
-17.8V
Q772
R772 120
Q772
2SJ105GRYTA
VIRTUAL BATTERY
Q774
2SA1123RSTTA
VIRTUAL BATTERY
C427 0.022
R437 47K
54.5V
-54.5V
JK801
CONTROL
OUT
IC502
RSN6000B
V-AMP (MOS)
-2.2V

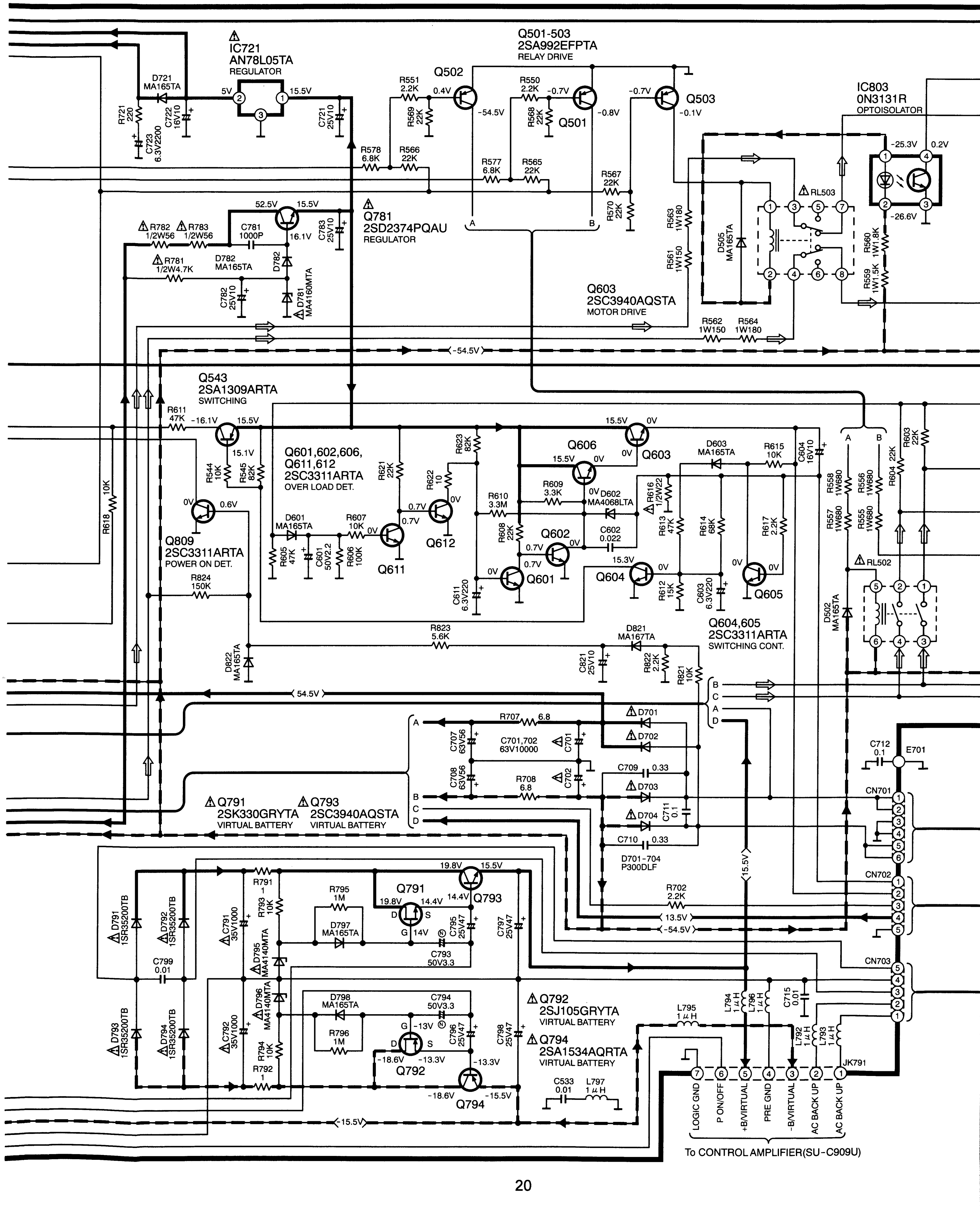

: POSITIVE VOLTAGE LINE
: NEGATIVE VOLTAGE LINE
: SOURCE SIGNAL LINE
5V
4.7V
IC801
UPD4027BC
J-K FLIP-FLOP
IC802
UPD4027BC
J-K FLIP-FLOP
Q804
UN4111TA
RELAY DRIVE
Q806
UN4111TA
RELAY DRIVE
Q810
UN4111TA
LAMP DRIVE
Q801
UN4215TA
LED FRIVE
Q802
UN4215TA
LED FRIVE
D812
MA165TA
D810
MA165TA
D803
MA165TA
D809
MA165TA
C809 0.1
C810 0.1
C801 0.1
R803 22K
R804 22K
C802 16V10
R802 5.6K
R809 82K
R813 22K
C716 0.01
R814 22K
R817 10K
C805 16V10
C807 16V10
R808 22K
R811 22K
C808 0.1
R810 22K
C804 0.1
R807 22K
Q808
2SA1309ARTA
POWER SUPPLY
D806
MA165TA
D811
MA165TA
Q803,807
UN4111TA
LED DRIVE
Q803
Q807
D762
MA165TA
R763 220
C764 6.3V2200
Q825
UN4111TA
POWER ON/OFF
Q822
UN4215TA
SWITCHING
R825 22K
IC761
AN78L05TA
REGULATOR
C762 25V10
C763 16V10
R826 1K
D802 MA165TA
L791 1μH
IC501
SVI3205B
POWER AMP
D604
MA165TA
AC DET.
MUTE DET
R933 1W680
R932 1W680
R931 1W680
R527 22K
D503 MA4160MTA
C508 50V47
R528 680K
R536 47
C509 50V10
R530 1/2W4.7K
R537 100
C507 25V100
D506 1SS291TA
D504 MA4160MTA
-6.3V
0V
54.5V
-54.5V
-15.7V
-4.3V
-13.9V
Q453,454
2SC3311ARTA
CLASS AA AMP
Q451,452
2SC2631RSTTA
CURRENT STABILIZER
Q455,456
2SA1309ARTA
CLASS AA AMP
Q451
Q452
Q453
Q454
Q455
Q456
C453 68P
R461 33K
R465 100
C451 0.033
C457 50V3.3
R467 100
C459 50V3.3
R463 33K
R459 100
C455 68P
C454 68P
R462 33K
R466 100
C452 0.033
C458 50V3.3
R468 100
C460 50V3.3
R464 33K
C456 68P
C465 0.1
C464 0.1
C463 0.1
R460 100
R470 1K
D452
D451 MA165TA
D453
R469 10K
R457 18K
D452 MA4056MTA
D453 MA29WATA
-53.5V
-54V
-2.2V
2.4V
0.2V
-0.2V
L501 1.8μH
C527 180P
R509 100
R533 10K
C525 2700P
C511 56P
R505 3.9K
R501 3.6K
R513 10
R515 10
L503 1.8μH
R519 1W3.3
C513 0.047
C505 0.047
R531 1/2W10
R521 1/2W10
C517 0.047
C515 0.047
R503 120
R507 120
C501 6.3V100
C503 6.3V100
R529 120K
R535 5.6K
C528 180P
R510 100
C526 2700P
R534 10K
R502 3.6K
C512 56P
R506 3.9K
R514 10
R516 10
L504 1.8μH
R520 1W3.3
C514 0.047
C506 0.047
R532 1/2W10
R522 1/2W10
C518 0.047
C516 0.047
R504 120
R508 120
C502 6.3V100
C504 6.3V100
L502 1.8μH
IC785
NJM4580DD
VIRTUAL BATTERY
R787 1K
C789 50V10
C787 220P
R789 33K
C790 50V10
R788 1K
R790 33K
C788 220P
15.5V
-15.5V
54.5V
-54.5V
A
B
C
D
E

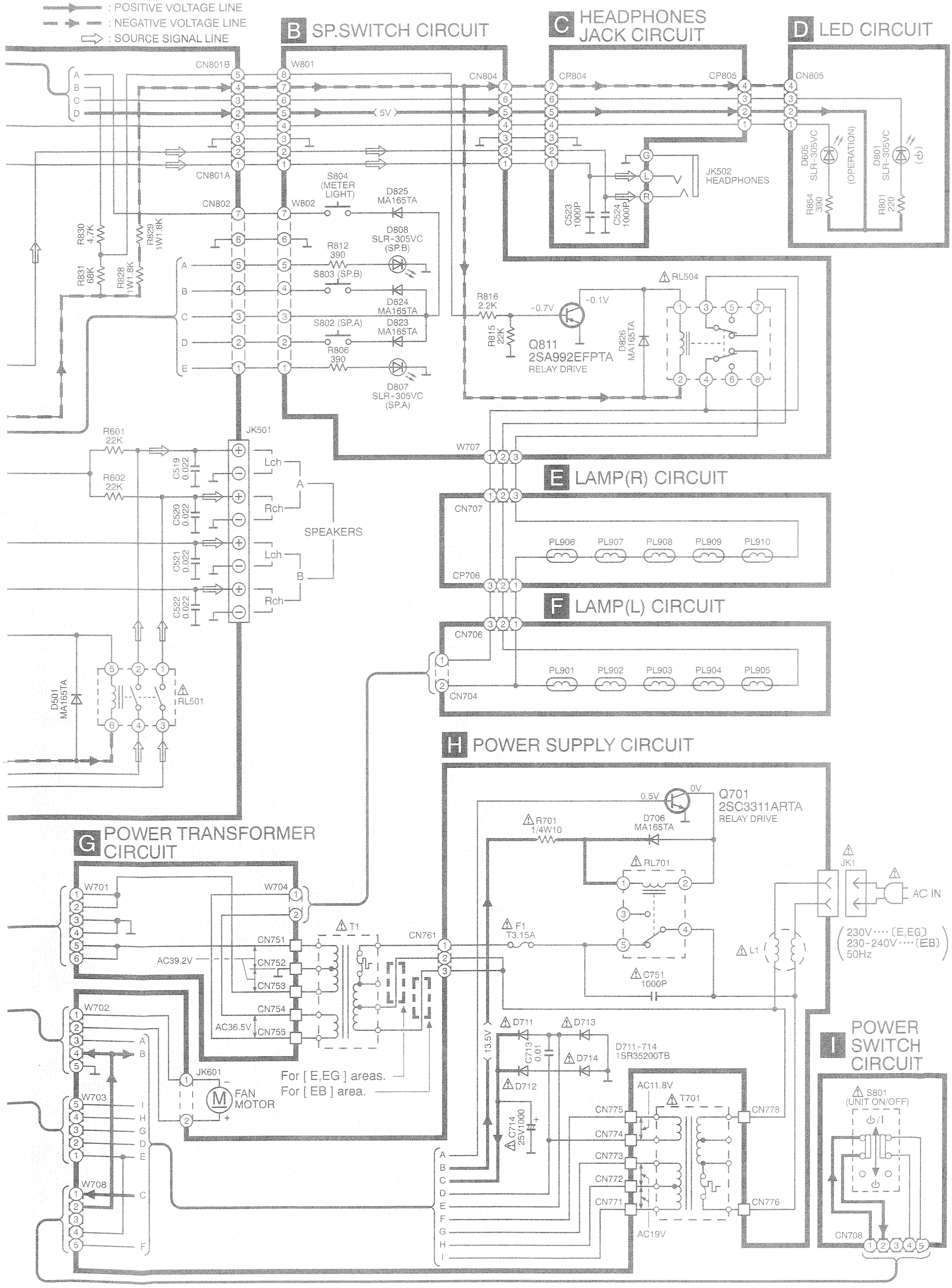
A MAIN CIRCUIT

: POSITIVE VOLTAGE LINE

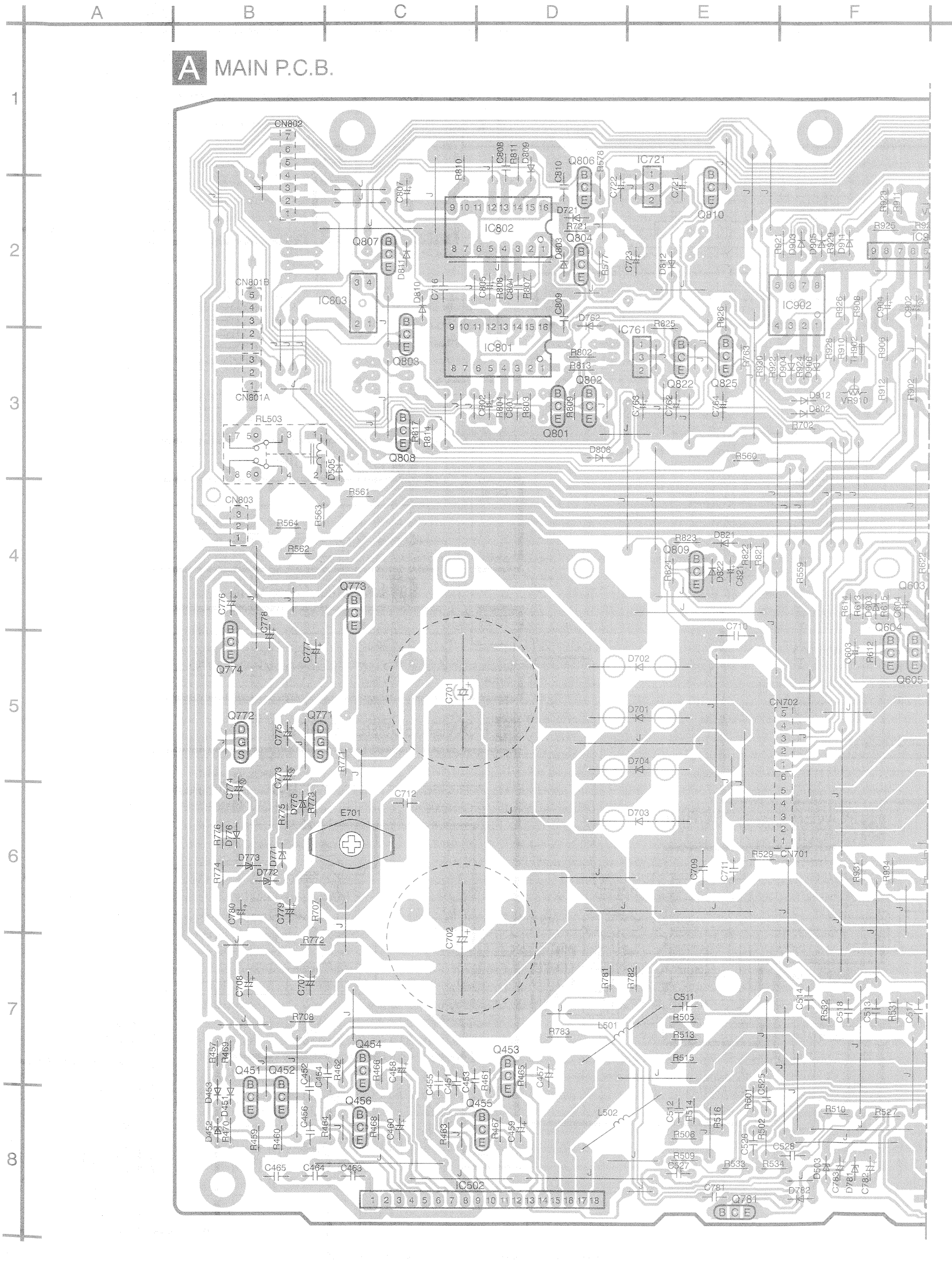
: NEGATIVE VOLTAGE LINE

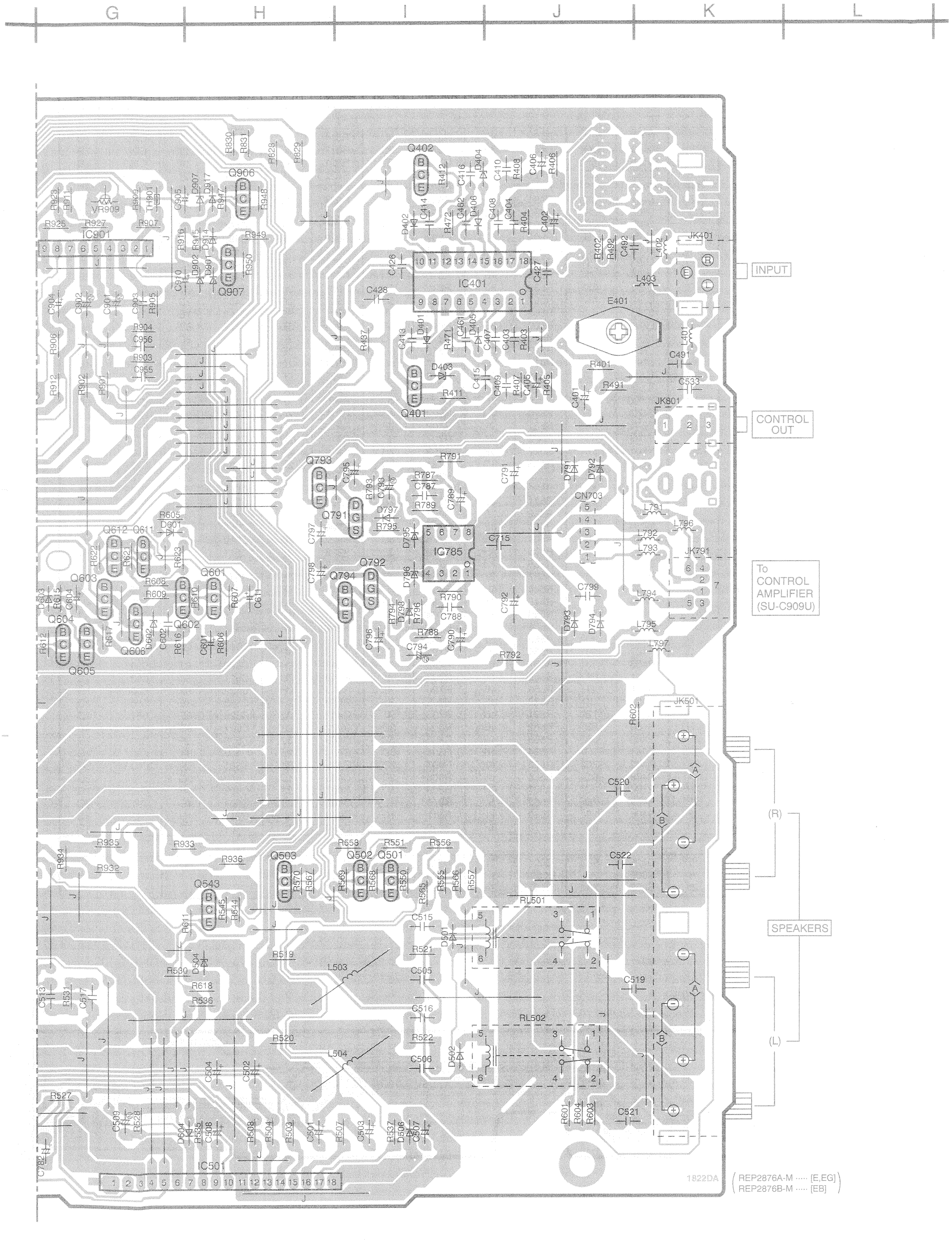
⇨ : SOURCE SIGNAL LINE


IC721
AN78L05TA
REGULATOR
D721
MA165TA
R721 220
C722 16V10
C723 6.3V2200
5V
15.5V
C721 25V10
Q501-503
2SA992EFPTA
RELAY DRIVE
Q502
R551 2.2K
R569 22K
0.4V
-54.5V
R550 2.2K
-0.7V
R568 22K
Q501
-0.8V
Q503
-0.1V
R578 6.8K
R566 22K
R577 6.8K
R565 22K
R567 22K
R570 22K
IC803
0N3131R
OPTOISOLATOR
-25.3V
0.2V
-26.6V
RL503
R563 1W180
R561 1W150
D505 MA165TA
R560 1W1.8K
R559 1W1.5K
Q781
2SD2374PQAU
REGULATOR
52.5V
15.5V
16.1V
R782 1/2W56
R783 1/2W56
C781 1000P
C783 25V10
R781 1/2W4.7K
D782 MA165TA
D782
C782 25V10
D781 MA4160MTA
Q603
2SC3940AQSTA
MOTOR DRIVE
R562 1W150
R564 1W180
-54.5V
Q543
2SA1309ARTA
SWITCHING
R611 47K
-16.1V
15.1V
R544 10K
R545 82K
R618 10K
Q809
2SC3311ARTA
POWER ON DET.
0V
0.6V
R824 150K
Q601,602,606,
Q611,612
2SC3311ARTA
OVER LOAD DET.
R621 22K
R623 82K
R622 10
0.7V
Q612
D601 MA165TA
R607 10K
R605 47K
C601 50V2.2
R606 100K
Q611
R610 3.3M
R608 22K
Q602
Q601
C611 6.3V220
Q606
R609 3.3K
D602 MA4068LTA
C602 0.022
R616 1/2W22
Q603
D603 MA165TA
R615 10K
C604 16V10
R613 47K
R614 68K
R617 2.2K
Q604
15.3V
R612 15K
C603 6.3V220
Q605
Q604,605
2SC3311ARTA
SWITCHING CONT.
R603 22K
R604 22K
R558 1W680
R556 1W680
R557 1W680
R555 1W680
RL502
D502 MA165TA
R823 5.6K
D821 MA167TA
D822 MA165TA
C821 25V10
R822 2.2K
R821 10K
54.5V
R707 6.8
D701
D702
C707 63V56
C701,702 63V10000
C701
C708 63V56
R708 6.8
C702
C709 0.33
D703
D704
C711 0.1
C710 0.33
D701-704
P300DLF
C712 0.1
E701
CN701
CN702
CN703
Q791
2SK330GRYTA
VIRTUAL BATTERY
Q793
2SC3940AQSTA
VIRTUAL BATTERY
D791 1SR35200TB
D792 1SR35200TB
C799 0.01
D793 1SR35200TB
D794 1SR35200TB
C791 35V1000
C792 35V1000
R791 1
R793 10K
D795 MA4140MTA
D796 MA4140MTA
R794 10K
R792 1
R795 1M
D797 MA165TA
19.8V
14.4V
14V
C793 50V3.3
C795 25V47
C797 25V47
D798 MA165TA
C794 50V3.3
R796 1M
-13V
-18.6V
-13.3V
Q792
C796 25V47
C798 25V47
Q794
-15.5V
Q792
2SJ105GRYTA
VIRTUAL BATTERY
Q794
2SA1534AQRTA
VIRTUAL BATTERY
R702 2.2K
13.5V
-54.5V
15.5V
L795 1μH
L794 1μH
L796 1μH
C715 0.01
L792 1μH
L793 1μH
C533 0.01
L797 1μH
JK791
-15.5V
LOGIC GND
P ON/OFF
+B/VIRTUAL
PRE GND
-B/VIRTUAL
AC BACK UP
AC BACK UP
To CONTROL AMPLIFIER(SU-C909U)


: POSITIVE VOLTAGE LINE
: NEGATIVE VOLTAGE LINE
: SOURCE SIGNAL LINE
B SP.SWITCH CIRCUIT
C HEADPHONES JACK CIRCUIT
D LED CIRCUIT
CN801B
W801
CN804
CP804
CP805
CN805
5V
CN801A
JK502 HEADPHONES
C523 1000P
C524 1000P
D605 SLR-305VC
(OPERATION)
D801 SLR-305VC
R854 390
R801 220
CN802
W802
S804 (METER LIGHT)
D825 MA165TA
D808 SLR-305VC (SP.B)
R812 390
S803 (SP.B)
D824 MA165TA
S802 (SP.A)
D823 MA165TA
R806 390
D807 SLR-305VC (SP.A)
R830 4.7K
R829 1W1.8K
R831 68K
R828 1W1.8K
RL504
R816 2.2K
-0.7V
-0.1V
R815 22K
Q811 2SA992EFPTA RELAY DRIVE
D826 MA165TA
W707
JK501
R601 22K
R602 22K
C519 0.022
C520 0.022
C521 0.022
C522 0.022
Lch
Rch
A
B
SPEAKERS
E LAMP(R) CIRCUIT
CN707
PL906
PL907
PL908
PL909
PL910
CP706
F LAMP(L) CIRCUIT
CN706
PL901
PL902
PL903
PL904
PL905
CN704
D501 MA165TA
RL501
H POWER SUPPLY CIRCUIT
0.5V
0V
Q701 2SC3311ARTA RELAY DRIVE
R701 1/4W10
D706 MA165TA
RL701
JK1
AC IN
230V····(E,EG)
230-240V····(EB)
50Hz
F1 T3.15A
L1
C751 1000P
G POWER TRANSFORMER CIRCUIT
W701
W704
CN751
CN752
CN753
CN754
CN755
AC39.2V
AC36.5V
T1
CN761
W702
JK601
FAN MOTOR
For [E,EG] areas.
For [EB] area.
W703
W708
D711
D713
D714
D712
13.5V
C713 0.01
C714 25V1000
D711-714 1SR35200TB
AC11.8V
T701
CN775
CN774
CN773
CN772
CN771
CN778
CN776
AC19V
I POWER SWITCH CIRCUIT
S801 (UNIT ON/OFF)
CN708

9 Printed Circuit Board Diagram


A
B
C
D
E
F
1
2
3
4
5
6
7
8
A MAIN P.C.B.
CN802
R810
C808
R811
D809
C810
Q806
R578
IC721
C722
C721
Q810
C807
IC802
D721
R721
Q804
Q807
D811
D803
R577
C723
D812
R923
R911
R921
D903
D905
R929
D914
R925
IC9
CN801B
IC803
D810
C716
C805
R808
C804
R807
C809
D762
R825
R826
IC761
IC902
R926
R908
C904
C902
IC801
R802
R813
Q803
Q822
Q825
R763
R930
R922
D904
R924
D906
R928
R910
TH902
R906
CN801A
Q802
C802
R804
C801
R803
R809
C763
C762
C764
D912
D802
VR910
R912
R902
RL503
Q808
R817
R814
Q801
D806
R702
D505
R560
R561
CN803
R564
R563
R562
R823
D821
Q809
R824
D822
C821
R822
R821
R559
R622
Q603
Q773
C776
C778
C777
Q774
C710
R614
R613
D603
R615
C604
Q604
C603
R612
Q605
D702
C701
D701
CN702
Q772
Q771
C775
R771
D704
C774
C773
D775
R773
R775
C712
E701
D703
R776
D776
D773
D771
D772
R774
C709
C711
R529
CN701
R931
R934
C780
C779
R707
C702
R772
C708
C707
R781
R782
C511
C514
R532
C518
C513
R531
C517
R708
R505
L501
R783
R513
Q454
Q453
R457
R469
R515
Q451
Q452
C452
C454
R462
R466
C458
C455
C451
C453
R461
R465
C457
C525
D453
D451
R601
Q456
Q455
R510
R527
D452
R470
R459
R460
C456
R464
R468
C460
R463
R467
C459
L502
C512
R514
R516
R502
R506
C526
C528
R509
C527
R533
R534
D503
C783
D781
C782
C465
C464
C463
IC502
C781
D782
Q781
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
B C E
B
C
E
D
G
S
J

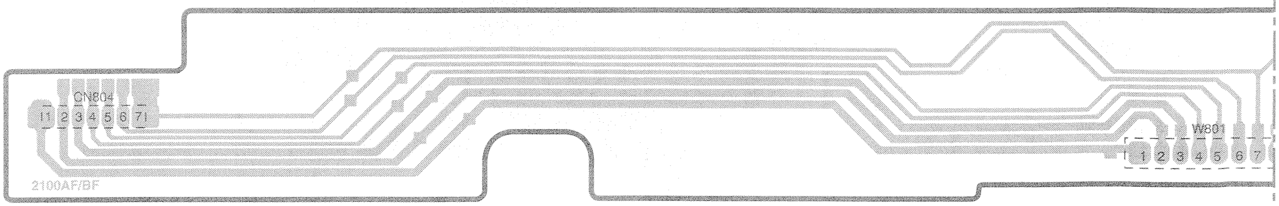

G
H
I
J
K
L
INPUT
JK401
CONTROL OUT
JK801
To CONTROL AMPLIFIER (SU-C909U)
JK791
CN703
SPEAKERS
(R)
(L)
JK501
IC401
IC785
IC901
IC501
RL501
RL502
E401
L503
L504
Q402
Q401
Q906
Q907
Q793
Q791
Q792
Q794
Q612
Q611
Q603
Q601
Q602
Q604
Q605
Q606
Q503
Q502
Q501
Q543
1822DA

REP2876A-M ····· [E,EG]
REP2876B-M ····· [EB]

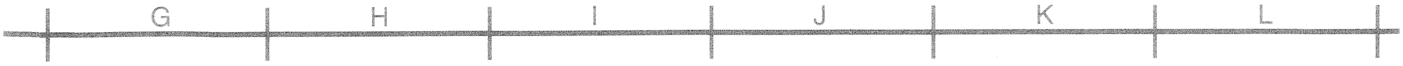
■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
A MAIN P.C.B.															
IC401	2I	D404	2I	D917	2H	R768	8C	R577	2D	R814	3C	C413	3I	C702	7C
IC501	8H	D405	3I	VR909	2G	R469	7B	R578	2D	R817	3C	C414	2I	C707	7B
IC502	8D	D406	2I	VR910	3F	R470	8B	R601	8J	R821	4E	C415	3I	C708	7B
IC721	2E	D451	8B	TH901	2G	R471	3I	R602	5J	R822	4E	C416	2I	C709	6E
IC761	3E	D452	8B	TH902	3F	R472	2I	R603	8J	R823	4E	C426	2I	C710	5E
IC785	4I	D453	8B	L401	3K	R491	3J	R604	8J	R824	4E	C427	2J	C711	6E
IC801	3D	D501	7I	L402	2K	R492	2J	R605	4G	R825	2E	C428	2I	C712	6C
IC802	2D	D502	7I	L403	2K	R501	8E	R606	5H	R826	2E	C451	7C	C715	4J
IC803	2C	D503	8F	L501	7D	R502	8E	R607	4H	R828	1H	C452	8B	C716	2C
IC901	2G	D504	7H	L502	8D	R503	8H	R608	4G	R829	1H	C453	7C	C721	2E
IC902	2F	D505	3C	L503	7I	R504	8H	R609	4G	R830	1H	C454	7C	C722	2D
Q401	3I	D506	8I	L504	7I	R505	7E	R610	4H	R831	1H	C455	7C	C723	2E
Q402	2I	D601	4G	L791	4K	R506	8E	R611	7G	R901	3G	C456	8B	C762	3E
Q451	8B	D602	5G	L792	4K	R507	8I	R612	5G	R902	3G	C457	7D	C763	3E
Q452	8B	D603	4G	L793	4K	R508	8H	R613	4F	R903	3G	C458	7C	C764	3E
Q453	7D	D604	8G	L794	4K	R509	8E	R614	4F	R904	3G	C459	8D	C773	5B
Q454	7C	D701	5E	L795	5K	R510	8F	R615	4G	R905	2G	C460	8C	C774	6B
Q455	8D	D702	5E	L796	4K	R513	7E	R616	5G	R906	3G	C461	3I	C775	5B
Q456	8C	D703	6E	L797	5K	R514	8E	R617	5G	R907	2G	C462	2I	C776	4B
Q501	6I	D704	5E	RL501	7J	R515	7E	R618	7H	R908	2F	C463	8C	C777	5B
Q502	6I	D721	2D	RL502	7J	R516	8E	R621	4G	R909	2G	C464	8B	C778	5B
Q503	6H	D762	2D	RL503	3B	R519	7H	R622	4G	R910	3F	C465	8B	C779	6B
Q543	6H	D771	6B	CN701	6F	R520	7H	R623	4G	R911	2G	C491	3K	C780	6B
Q601	4H	D772	6B	CN702	5F	R521	7I	R702	3F	R912	3G	C492	2J	C781	8E
Q602	4G	D773	6B	CN703	4J	R522	7I	R707	6B	R915	2H	C501	8H	C782	8F
Q603	4G	D775	6B	CN801A	3B	R527	8F	R708	7B	R916	2G	C502	8H	C783	8F
Q604	5G	D776	6B	CN801B	2B	R528	8G	R721	2D	R921	2F	C503	8I	C787	4I
Q605	5G	D781	8F	CN802	1B	R529	6E	R763	3E	R922	3E	C504	8H	C788	4I
Q606	5G	D782	8F	CN803	4B	R530	7G	R771	5C	R923	2G	C505	7I	C789	4I
Q611	4G	D791	4J	JK401	2K	R531	7F	R772	7B	R924	3F	C506	7I	C790	5I
Q612	4G	D792	4J	JK501	5K	R532	7F	R773	6B	R925	2G	C507	8I	C791	4J
Q771	5B	D793	5J	JK791	4K	R533	8E	R774	6B	R926	2F	C508	8H	C792	4J
Q772	5B	D794	5J	JK801	3K	R534	8E	R775	6B	R927	2G	C509	8G	C793	4I
Q773	4C	D795	4I	E401	3J	R535	8H	R776	6B	R928	3F	C511	7E	C794	5I
Q774	5B	D796	4I	E701	6C	R536	7H	R781	7D	R929	2F	C512	8E	C795	4I
Q781	8E	D797	4I	R401	3J	R537	8I	R782	7E	R930	3E	C513	7F	C796	5I
Q791	4I	D798	4I	R402	2J	R544	6H	R783	7D	R931	6F	C514	7F	C797	4H
Q792	4I	D802	3F	R403	3J	R545	6H	R787	4I	R932	6G	C515	7I	C798	4H
Q793	4H	D803	2D	R404	2J	R550	6I	R788	5I	R933	6G	C516	7I	C799	4J
Q794	4I	D806	3D	R405	3J	R551	6I	R789	4I	R934	6F	C517	7F	C801	3D
Q801	3D	D809	1D	R406	1J	R555	6I	R790	4I	R935	6G	C518	7F	C802	3D
Q802	3D	D810	2C	R407	3J	R556	6I	R791	3I	R936	6H	C519	7J	C804	2D
Q803	3C	D811	2C	R408	1J	R557	6I	R792	5J	R947	2H	C520	6J	C805	2D
Q804	2D	D812	2E	R411	3I	R558	6I	R793	4I	R948	2H	C521	8J	C807	2C
Q806	2D	D821	4E	R412	2I	R559	4F	R794	4I	R949	2H	C522	6J	C808	1D
Q807	2C	D822	4E	R437	3I	R560	3E	R795	4I	R950	2H	C525	8E	C809	2D
Q808	3C	D901	2H	R457	7B	R561	4C	R796	4I	C401	3J	C526	8E	C810	2D
Q809	4E	D902	2H	R459	8B	R562	4B	R802	3D	C402	2J	C527	8E	C821	4E
Q810	2E	D903	2F	R460	8B	R563	4B	R803	3D	C403	3J	C528	8F	C901	2G
Q822	3E	D904	3F	R461	7D	R564	4B	R804	3D	C404	2J	C533	3K	C902	2G
Q825	3E	D905	2F	R462	7C	R565	6I	R807	2D	C405	3J	C601	5H	C903	2G
Q906	2H	D906	3F	R463	8C	R566	6I	R808	2D	C406	1J	C602	5G	C904	2G
Q907	2H	D907	2H	R464	8C	R567	6H	R809	3D	C407	3J	C603	5F	C905	2G
D401	3I	D911	2F	R465	7D	R568	6I	R810	1C	C408	2J	C604	4G	C910	2G
D402	2I	D912	3F	R466	7C	R569	6I	R811	1D	C409	3J	C611	4H	C955	3G
D403	3I	D914	2H	R467	8D	R570	6H	R813	3D	C410	1J	C701	5C	C956	3G
B SP. SWITCH P.C.B.															
Q811	8G	D823	8I	D826	8H	S804	7I	W707	8H	R806	8J	R816	8G		
D807	8J	D824	7I	S802	7J	RL504	8H	W801	8F	R812	8K				
D808	8K	D825	8I	S803	7K	CN804	8A	W802	8L	R815	8G				

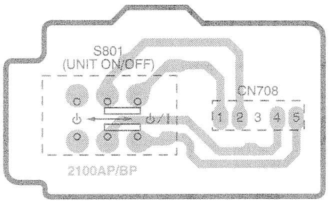
B SP. SWITCH P.C.B.



(REP2877AB-S ····· [E,EG]
REP2877BB-S ····· [EB])

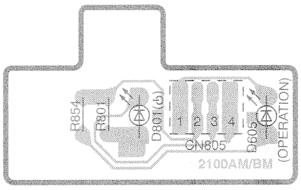


I POWER SWITCH P.C.B.


S801
(UNIT ON/OFF)
CN708
1 2 3 4 5
2100AP/BP

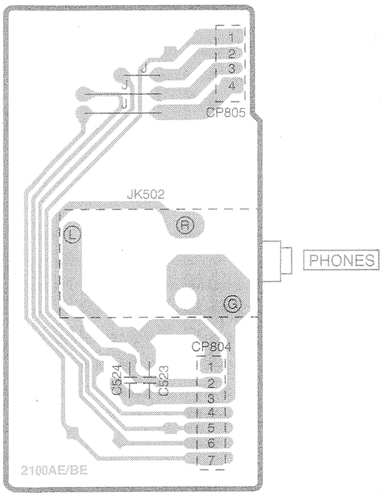
(REP2877AB-S ····· [E,EG]
REP2877BB-S ····· [EB])

D LED P.C.B.


R854
R801
D801(⏻)
1 2 3 4
CN805
D605
(OPERATION)
2100AM/BM

(REP2877AB-S ····· [E,EG]
REP2877BB-S ····· [EB])

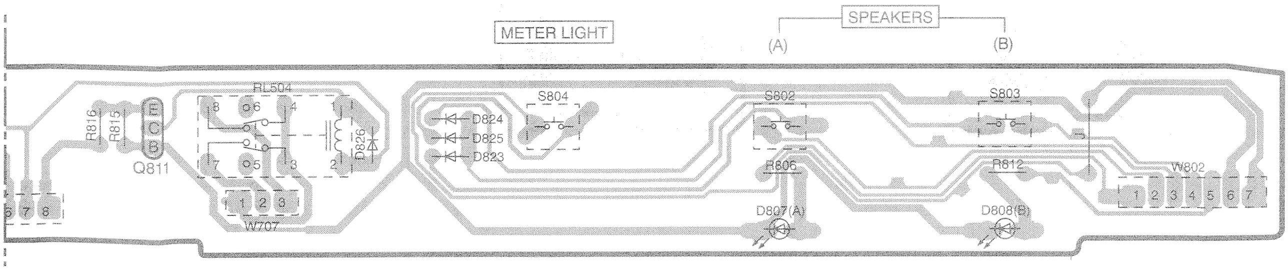
C HEADPHONES JACK P.C.B.


1
2
3
4
CP805
JK502
R
L
G
PHONES
CP804
C524
C523
1
2
3
4
5
6
7
2100AE/BE

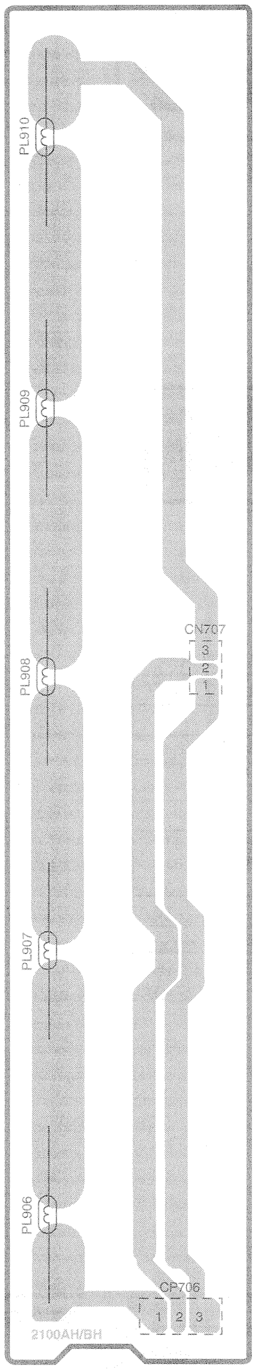
(REP2877AB-S ····· [E,EG]
REP2877BB-S ····· [EB])

■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.
C HEADPHONES JACK P.C.B.			
JK502 CP804 CP805	5H 6H 4H	C523 C524	6H 6H
D LED P.C.B.			
D605 D801 CN805	3K 3K 3K	R801 R854	3J 3J
I POWER SWITCH P.C.B.			
S801	2J	CN708	2K

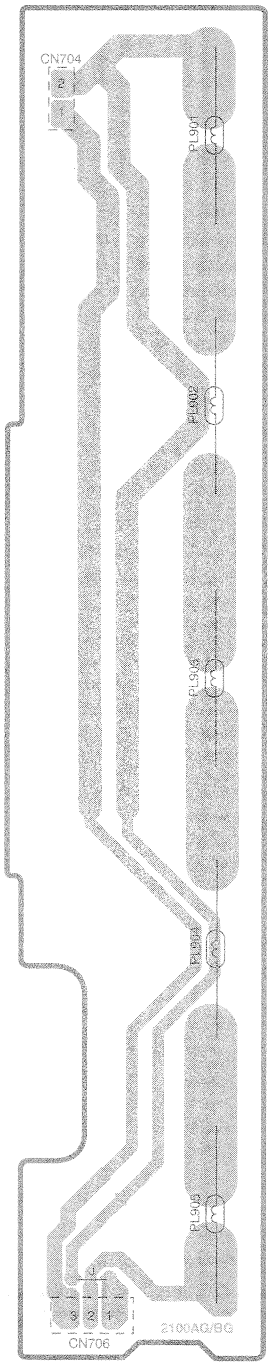

METER LIGHT
SPEAKERS
(A)
(B)
R816
R815
E
C
B
Q811
RL504
8
6
4
7
5
3
2
D826
W707
1 2 3
D824
D825
D823
S804
S802
R806
D807(A)
S803
R812
D808(B)
W802
1 2 3 4 5 6 7
6 7 8

E LAMP(R) P.C.B.


A
B
C
D
E
F
1
2
3
4
5
6
7
8
PL910
PL909
PL908
CN707
3
2
1
PL907
PL906
CP706
1
2
3
2100AH/BH

(REP2877AB-S ····· [E,EG]
REP2877BB-S ····· [EB])

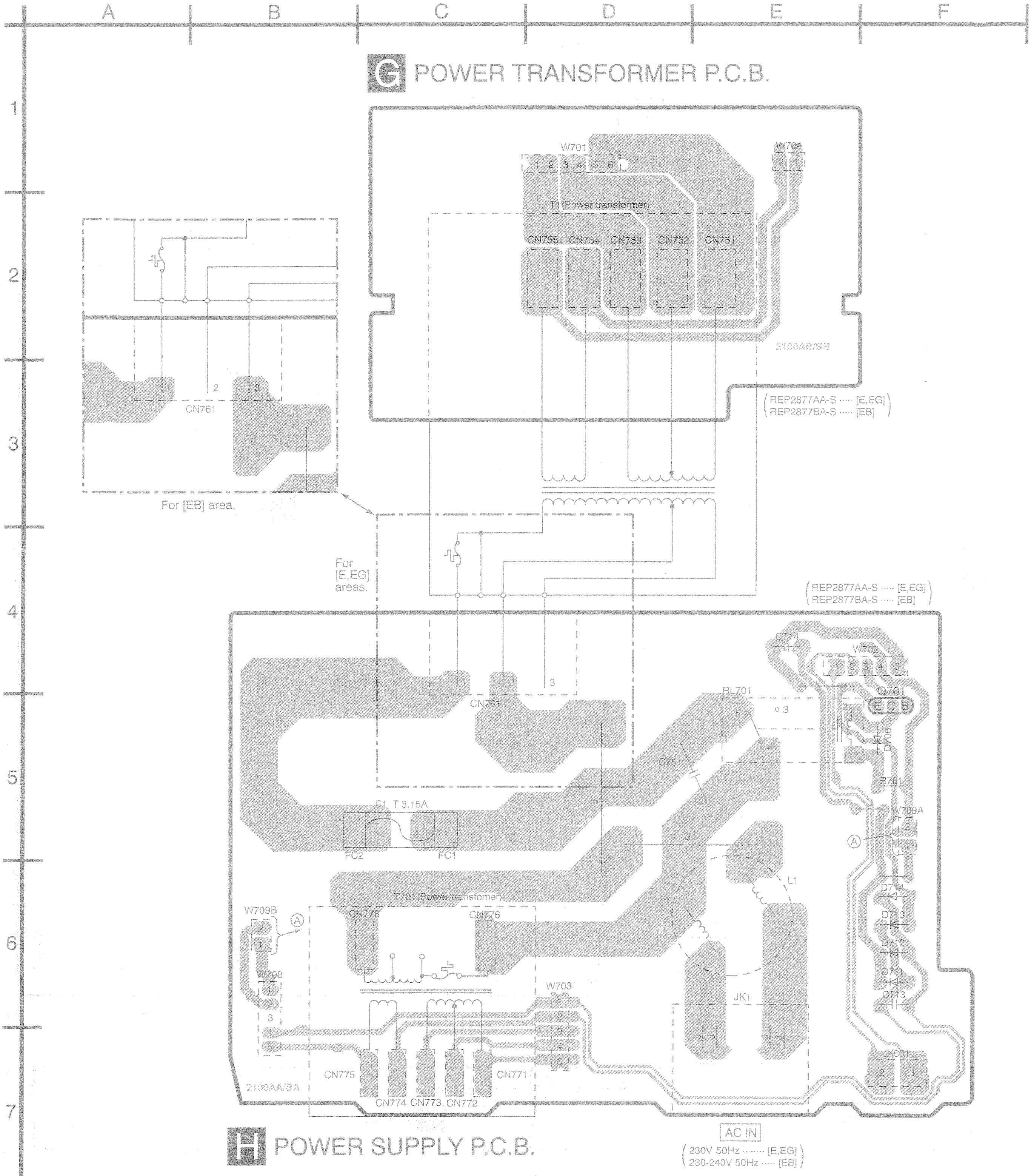
F LAMP(L) P.C.B.


CN704
2
1
PL901
PL902
PL903
PL904
PL905
J
3
2
1
CN706
2100AG/BG

(REP2877AB-S ····· [E,EG]
REP2877BB-S ····· [EB])

■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.
E LAMP(R) P.C.B.			
PL906	7A	PL910	2A
PL907	6A	CN707	4B
PL908	4A	CP706	7B
PL909	3A		
F LAMP(L) P.C.B.			
PL901	2D	PL905	7D
PL902	3D	CN704	2C
PL903	4D	CN706	7C
PL904	6D		


A
B
C
D
E
F
1
2
3
4
5
6
7
8
W701
W704
T1 (Power transformer)
CN755
CN754
CN753
CN752
CN751
2100AB/BB
REP2877AA-S ····· [E,EG]
REP2877BA-S ····· [EB]
CN761
For [EB] area.
For [E,EG] areas.
C714
W702
Q701
E C B
RL701
D706
C751
R701
W709A
Ⓐ
F1 T 3.15A
FC2
FC1
J
L1
T701 (Power transformer)
W709B
CN778
CN776
W708
W703
JK1
D714
D713
D712
D711
C713
JK601
CN775
CN774
CN773
CN772
CN771
2100AA/BA
AC IN
230V 50Hz ········ [E,EG]
230-240V 50Hz ····· [EB]

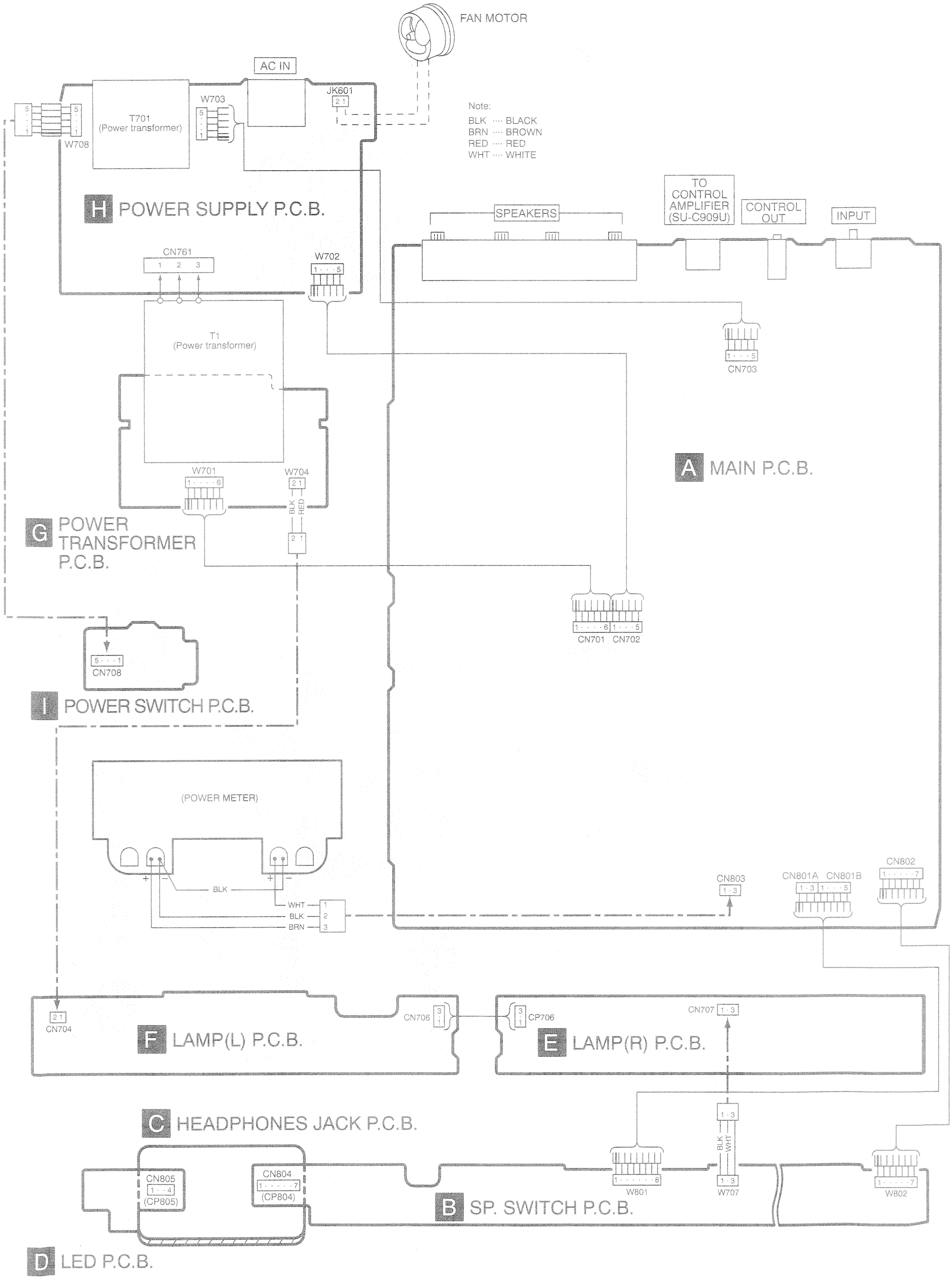
G POWER TRANSFORMER P.C.B.

H POWER SUPPLY P.C.B.

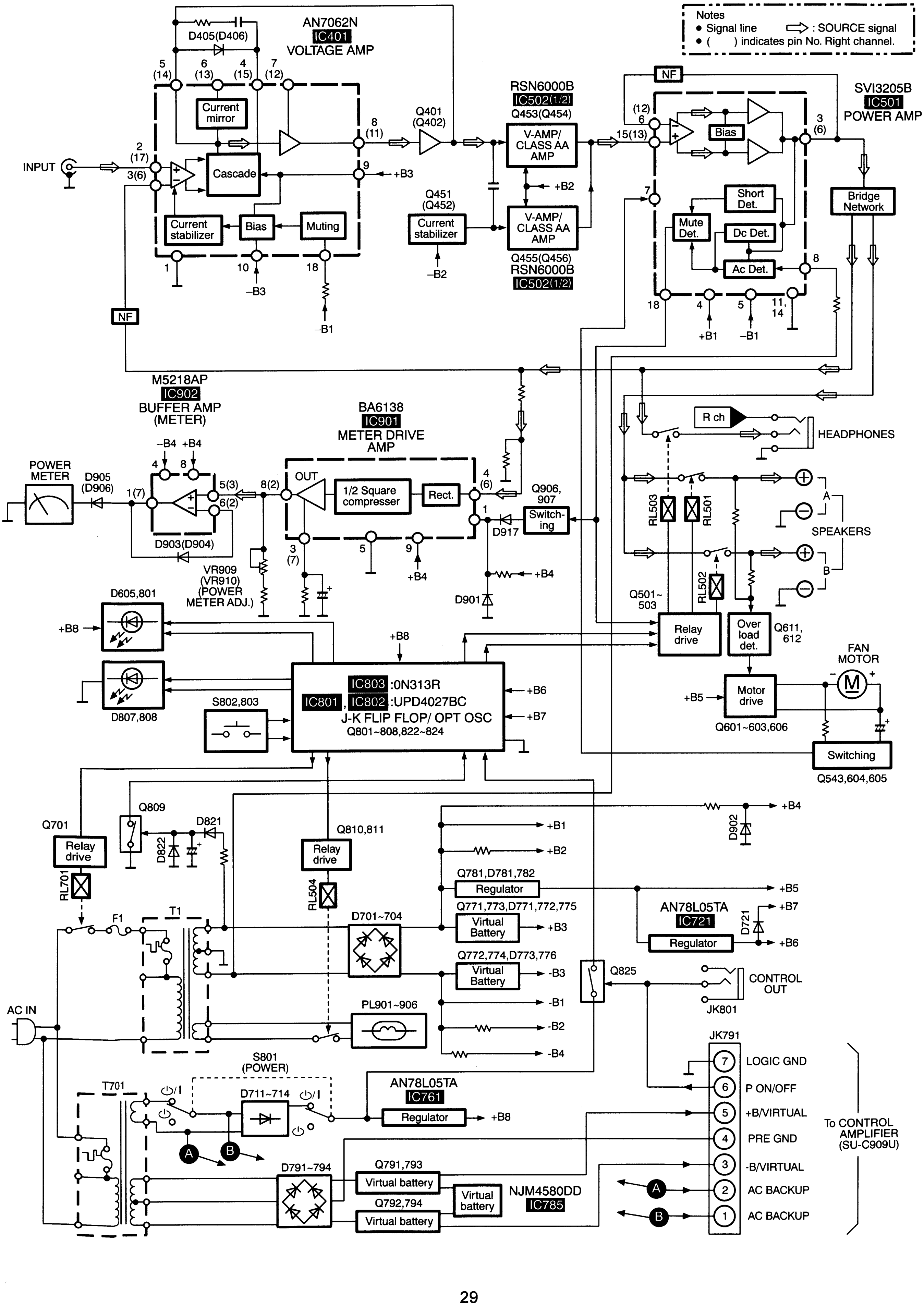
ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
G POWER TRANSFORMER P.C.B.															
T1	2D	CN751	2E	CN752	2D	CN753	2D	CN754	2D	CN755	2D	W701	1D	W704	1E
H POWER SUPPLY P.C.B.															
Q701	5F	D713	6F	L1	6E	CN772	7C	CN776	6C	FC1	5C	W708	6B	C713	6F
D706	5F	D714	6F	RL701	5E	CN773	7C	CN778	6C	FC2	5B	W709A	5F	C714	4E
D711	6F	T701	6C	CN761	4C	CN774	7C	JK1	7E	W702	4F	W709B	6B	C751	5E
D712	6F	F1	5C	CN771	7C	CN775	7C	JK601	7F	W703	6D	R701	5F		

10 Wiring Connection Diagram


FAN MOTOR
AC IN
JK601
W703
T701
(Power transformer)
W708
Note:
BLK ···· BLACK
BRN ···· BROWN
RED ···· RED
WHT ···· WHITE
H POWER SUPPLY P.C.B.
CN761
W702
SPEAKERS
TO CONTROL AMPLIFIER (SU-C909U)
CONTROL OUT
INPUT
CN703
T1
(Power transformer)
A MAIN P.C.B.
W701
W704
BLK
RED
G POWER TRANSFORMER P.C.B.
CN701
CN702
CN708
I POWER SWITCH P.C.B.
(POWER METER)
BLK
WHT
BRN
CN803
CN801A
CN801B
CN802
CN704
F LAMP(L) P.C.B.
CN706
CP706
CN707
E LAMP(R) P.C.B.
C HEADPHONES JACK P.C.B.
CN805
(CP805)
CN804
(CP804)
W801
W707
W802
B SP. SWITCH P.C.B.
D LED P.C.B.

11 Block Diagram


Notes
● Signal line ⇨ : SOURCE signal
● ( ) indicates pin No. Right channel.
AN7062N
IC401
VOLTAGE AMP
D405(D406)
INPUT
Current mirror
Cascade
Current stabilizer
Bias
Muting
+B3
-B3
-B1
NF
Q401 (Q402)
RSN6000B
IC502(1/2)
Q453(Q454)
V-AMP/ CLASS AA AMP
+B2
Q451 (Q452)
Current stabilizer
-B2
Q455(Q456)
RSN6000B
IC502(1/2)
SVI3205B
IC501
POWER AMP
Bias
Short Det.
Mute Det.
Dc Det.
Ac Det.
+B1
-B1
Bridge Network
M5218AP
IC902
BUFFER AMP (METER)
-B4 +B4
POWER METER
D905 (D906)
D903(D904)
BA6138
IC901
METER DRIVE AMP
OUT
1/2 Square compressor
Rect.
+B4
VR909 (VR910) (POWER METER ADJ.)
Q906, 907
Switch-ing
D917
D901
R ch
HEADPHONES
RL503
RL501
RL502
SPEAKERS
Q501~503
Relay drive
Over load det.
Q611, 612
FAN MOTOR
M
+B5
Motor drive
Q601~603,606
Switching
Q543,604,605
D605,801
+B8
D807,808
S802,803
IC803 :0N313R
IC801 , IC802 :UPD4027BC
J-K FLIP FLOP/ OPT OSC
Q801~808,822~824
+B6
+B7
Q809
D821
D822
Q701
Relay drive
RL701
Q810,811
Relay drive
RL504
F1
T1
AC IN
D701~704
PL901~906
+B4
D902
+B1
+B2
Q781,D781,782
Regulator
+B5
Q771,773,D771,772,775
Virtual Battery
+B3
AN78L05TA
IC721
D721
+B7
Regulator
+B6
Q772,774,D773,776
Virtual Battery
-B3
-B1
-B2
-B4
Q825
CONTROL OUT
JK801
JK791
S801 (POWER)
T701
D711~714
AN78L05TA
IC761
Regulator
+B8
A
B
D791~794
Q791,793
Virtual battery
Q792,794
Virtual battery
Virtual battery
NJM4580DD
IC785
7 LOGIC GND
6 P ON/OFF
5 +B/VIRTUAL
4 PRE GND
3 -B/VIRTUAL
2 AC BACKUP
1 AC BACKUP
To CONTROL AMPLIFIER (SU-C909U)

12 Measurements and Adjustments

12.1. Measuring Instruments and Special Tools

- AC electronic voltmeter (AC EVM)
- AF oscillator

12.2. Power Meter Adjustment

1. Test equipment connection is shown in Fig.1
2. Before turning **ON** the set, adjust **VR909 (L ch)** and **VR910 (R ch)** to mechanical center position. Shown in Fig.2
3. Turn the power **ON**, make sure that the power meter is mechanically adjusted to **0** point. Shown in Fig.3
4. Apply a **1 kHz** signal to the input terminal so that the output voltage of speaker terminal is **8.9 - 9.0 V**. (Adjust the signal level with the attenuator of AF oscillator.)
5. Adjust **VR909 (L ch)** and **VR910 (R ch)** so that the power meter indicates **10 W**. Shown in Fig.4

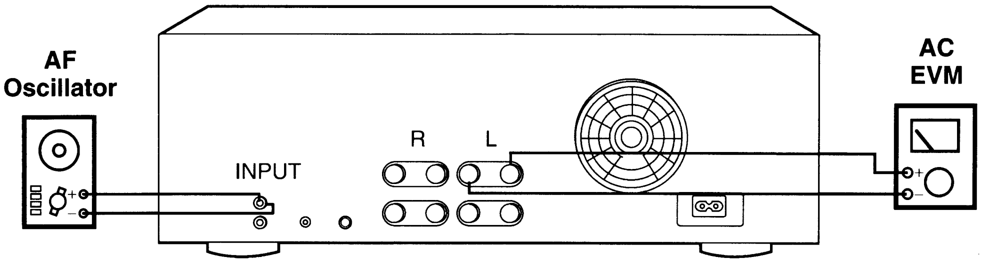

AF
Oscillator
INPUT
R
L
AC
EVM
+
−

Fig.1

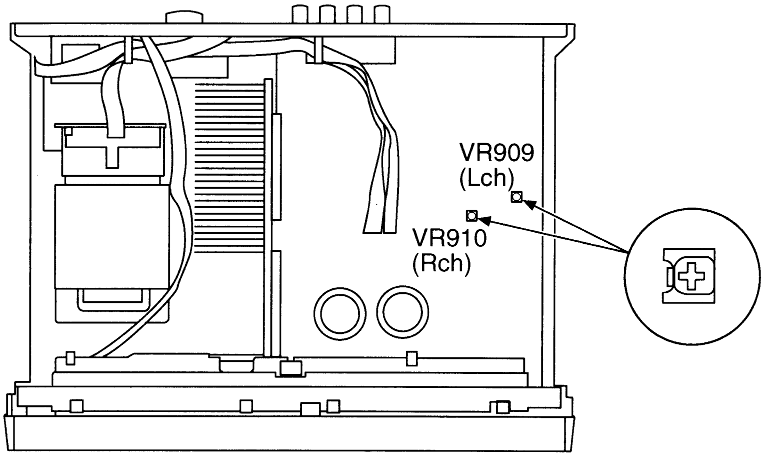

VR909
(Lch)
VR910
(Rch)

Fig.2

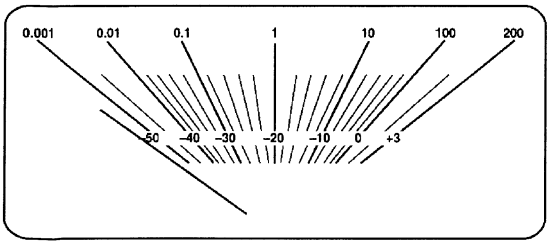

0.001
0.01
0.1
1
10
100
200
-50
-40
-30
-20
-10
0
+3

Fig.3

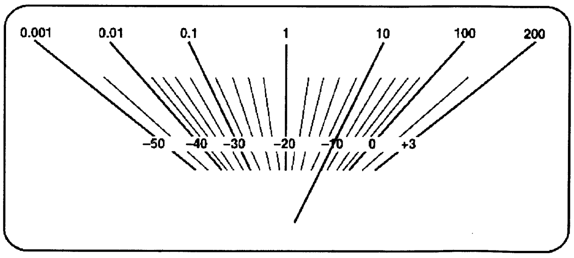

0.001
0.01
0.1
1
10
100
200
-50
-40
-30
-20
-10
0
+3

Fig.4

13 Replacement Parts List

Notes:

- Important safety notice:

  Components identified by ⚠ mark have special characteristics important for safety.

  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

  When replacing any of components, be sure to use only manufactures specified parts shown in the parts list.
- The <IA> <IB> <IC> <ID> marks in Remarks indicate language of instruction manual.

  <IA> : English, Spanish, Swedish, Russian, Polish, Czech

  <IB> : English

  <IC> : German, Italian, French

  <ID> : Netherlandish, Danish
- The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
- The marking (RTL) indicates that Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
1	RKM0041A-K2	TOP COVER	1	
2	SNE2129-3	SCREW	4	
3	XTBS3+8JFZ1	SCREW	2	
4	REM0020-1	FAN UNIT	1	
4-1	MDN-4RB4MRC	FAN MOTOR	1	
4-2	RMQ0208-K	COVER	1	
4-3	RMQ0209-K	CASE	1	
4-4	RMQ0212-K	FAN TERMINAL	1	
4-5	SHE232-1	FAN	1	
4-6	SUS271	SPRING	1	
5	RKA0053-A	FOOT	4	
5-1	RMG0270-K	RUBBER	4	
6	RMG0332-K	RUBBER	2	
7	RMN0217-1	PCB HOLDER	1	
8	REX0741	WIRE ASS´Y	1	
9	RGB0031-A	TECHNICS BADGE	1	
10	RGG0166A-K	PANEL	1	
11	RGG0167C-K1	PANEL	1	
12	RGL0301-Q	PANEL LIGHT A	1	
13	RGL0302-Q	PANEL LIGHT B	1	
14	RGP0720-K	PANEL	1	
15	RGU0890-1K	BUTTON,POWER	1	
16	RGU1271-1K	BUTTON,SPEAKER	3	
17	RHD26016	SCREW	1	
18	RHD26033	SCREW	4	
19	RKW0584-Q	WINDOW	1	
20	RMG0509-K	CAP	4	
21	RSE0006D	POWER METER	1	
22	XTBS26+8J	SCREW	21	
23	XTBS3+8JFZ1	SCREW	16	
24	XTB3+20JFZ	SCREW	9	
25	XTB3+6G	SCREW	4	
26	XTB3+8JFZ	SCREW	9	
27	XTW3+15T	SCREW	5	
28	REZ1232	WIRE ASS´Y	1	
29	REZ1263	WIRE ASS´Y	1	
30	REZ1233	WIRE ASS´Y	1	
31	RMR1110-K	TERMINAL COVER	8	
A1	RAK-SUA11WH	REMOTE CONT.TRANSMITTER	1	
A1-1	RKK0123-K	BATTERY COVER	1	
A2 ⚠	RJA0019-X	AC POWER SUPPLY CORD	1	(E,EG)
A2 ⚠	RJA0053-2X	AC POWER SUPPLY CORD	1	(EB)
A3	RJL6D001B10	DIN CORD	1	
A4	SJP2276	PIN CORD	1	
A5	RQCB0169	SERVICE CENTER LIST	1	
A6	RQA0117	WARRANTY CARD	1	
A7	RQT5167-E	OPERATING INSTRUCTIONS	1	(E)<IA>
A8	RQT5170-B	OPERATING INSTRUCTIONS	1	(EB) <IB>
A9	RQT5168-D	OPERATING INSTRUCTIONS	1	(EG) <IC>
A10	RQT5169-H	OPERATING INSTRUCTIONS	1	(EG) <ID>
C401,02	ECA1HPXS4R7B	50V 4.7U	2	
C403,04	ECKT1H221KB	50V 220P	2	
C405,06	ECA1EPXS470B	25V 47U	2	
C407,08	ECBT1H820KB5	50V 82P	2	
C409,10	ECCR2H180JC5	500V 18P	2	
C413,14	ECCV2H070D	500V 7P	2	
C415,16	ECBT1H102KB5	50V 1000P	2	
C426	ECQB1H102JF3	50V 1000P	1	
C427	ECQB1H223JF3	50V 0.022U	1	
C428	ECHR1H103JZ3	50V 0.01U	1	
C451,52	ECKR1H333ZF5	50V 0.033U	2	
C453-56	ECCV2H680K	500V 68P	4	
C457-60	RCE1HKA3R3BG	50V 3.3U	4	
C461,62	ECBT1H102KB5	50V 1000P	2	
C463-65	ECBT1H104ZF5	50V 0.1U	3	
C491,92	ECKT1H101KB	50V 100P	2	
C501-04	ECA0JPXS101	6.3V 100U	4	
C505,06	ECQV1H473JM3	50V 0.047U	2	
C507	ECA1EM101	25V 100U	1	
C508	ECA1HM470	50V 47U	1	
C509	ECEA1HN100SB	50V 10U	1	
C511,12	ECBT1H560J5	50V 56P	2	
C513-18	ECQV1H473JM3	50V 0.047U	6	
C519-22	ECQB1H223JF3	50V 0.022U	4	
C523,24	ECBT1H102KB5	50V 1000P	2	
C525,26	ECBT1C272KR5	16V 2700P	2	
C527,28	ECBT1H181KB5	50V 180P	2	
C533	ECBT1C103NS5	16V 0.01U	1	
C601	ECEA1HKS2R2	50V 2.2U	1	
C602	ECBT1E223ZF	25V 0.022U	1	
C603	ECEA1AKS221	6.3V 220U	1	
C604	RCE1CKA100BG	16V 10U	1	
C611	ECEA1AKS221	6.3V 220U	1	
C701,02 ⚠	ECETX1J103WZ	63V 10000U	2	
C707,08	ECA1JPXH560E	63V 56U	2	
C709,10	ECQE2334KFW	250V 0.33U	2	
C711	ECQE2104KF3	250V 0.1U	1	
C712	ECBT1H104ZF5	50V 0.1U	1	
C713	ECKR1H103ZF5	50V 0.01U	1	
C714 ⚠	ECA1EM102	25V 1000U	1	
C715,16	ECBT1C103NS5	16V 0.01U	2	
C721	ECEA1EKS100	25V 10U	1	
C722	RCE1CKA100BG	16V 10U	1	
C723	ECA0JM222	6.3V 2200U	1	
C751 ⚠	ECKWRS102MBC	125V 1000P	1	
C762	ECEA1EKS100	25V 10U	1	
C763	RCE1CKA100BG	16V 10U	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
C764	ECA0JM222	6.3V 2200U	1	
C773,74	ECA1HBX3R3B	50V 3.3U	2	
C775	ECA1HPXS470B	50V 47U	1	
C776	ECA1EPXS470B	25V 47U	1	
C777	ECA1JPX470TB	63V 47U	1	
C778	ECA1EPX470TB	25V 47U	1	
C779,80	ECA2APXS100B	100V 10U	2	
C781	ECBT1H102KB5	50V 1000P	1	
C782,83	ECEA1EKS100	25V 10U	2	
C787,88	ECCR1H221J5	50V 220P	2	
C789,90	ECA1HPXS100B	50V 10U	2	
C791,92 ⚠	ECA1VPT102ZE	35V 1000U	2	
C793,94	ECA1HBX3R3B	50V 3.3U	2	
C795-98	ECA1EPXS470B	25V 47U	4	
C799	ECKR2H103ZU	500V 0.01U	1	
C801	ECBT1H104ZF5	50V 0.1U	1	
C802	RCE1CKA100BG	16V 10U	1	
C804	ECBT1H104ZF5	50V 0.1U	1	
C805	RCE1CKA100BG	16V 10U	1	
C807	RCE1CKA100BG	16V 10U	1	
C808-10	ECBT1H104ZF5	50V 0.1U	3	
C821	ECEA1EKS100	25V 10U	1	
C901,02	ECEA1EKN3R3B	25V 3.3U	2	
C903,04	ECEA1HKS2R2	50V 2.2U	2	
C905	RCE1HKA4R7BG	50V 4.7U	1	
C910	RCE1HKA4R7BG	50V 4.7U	1	
C955,56	ECBT1C152JR5	16V 1500P	2	
CN701	RJS1A6606	CONNECTOR(6P)	1	
CN702,03	RJS1A6605	CONNECTOR(5P)	2	
CN704	RJP2G17ZA	CONNECTOR(2P)	1	
CN706	SJS50382JQH	CONNECTOR(3P)	1	
CN707	RJP3G17ZA	CONNECTOR(3P)	1	
CN708	RJS1A6605	CONNECTOR(5P)	1	
CN751-55	RJS1A1101T1	CONNECTOR(1P)	5	
CN761	SJS305-1	CONNECTOR(3P)	1	
CN771-76	RJS1A1101T1	CONNECTOR(1P)	6	
CN778	RJS1A1101T1	CONNECTOR(1P)	1	
CN801A	RJS1A6603	CONNECTOR(3P)	1	
CN801B	RJS1A6605	CONNECTOR(5P)	1	
CN802	RJS1A6607T1	CONNECTOR(7P)	1	
CN803	RJP3G18ZA	CONNECTOR(3P)	1	
CN804	RJU057W007	CONNECTOR(7P)	1	
CN805	RJU057W004	CONNECTOR(4P)	1	
CP706	SJT30345JQ	CONNECTOR(3P)	1	
CP804	RJT057W007-1	CONNECTOR(7P)	1	
CP805	RJT057W004-1	CONNECTOR(4P)	1	
D401,02	MA167	DIODE	2	
D403,04	MA4036M	DIODE	2	
D405,06	MA165	DIODE	2	
D451	MA165	DIODE	1	
D452	MA4056M	DIODE	1	
D453	MA29WA	DIODE	1	
D501,02	MA165	DIODE	2	
D503,04 ⚠	MA4160M	DIODE	2	
D505	MA165	DIODE	1	
D506	1SS291TA	DIODE	1	
D601	MA165	DIODE	1	
D602	MA4068L	DIODE	1	
D603,04	MA165	DIODE	2	
D605	SLR-305VC	LED	1	
D701-04 ⚠	P300DLF	DIODE	4	
D706	MA165	DIODE	1	
D711-14 ⚠	1SR35200TB	DIODE	4	
D721	MA165	DIODE	1	
D762	MA165	DIODE	1	
D771,72 ⚠	MA4220M	DIODE	2	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
D773 ⚠	MA4160M	DIODE	1	
D775,76	MA165	DIODE	2	
D781 ⚠	MA4160M	DIODE	1	
D782	MA165	DIODE	1	
D791-94 ⚠	1SR35200TB	DIODE	4	
D795,96 ⚠	MA4140M	DIODE	2	
D797,98	MA165	DIODE	2	
D801	SLR-305VC	LED	1	
D802,03	MA165	DIODE	2	
D806	MA165	DIODE	1	
D807,08	SLR-305VC	LED	2	
D809-12	MA165	DIODE	4	
D821	MA167	DIODE	1	
D822-26	MA165	DIODE	5	
D901	MA165	DIODE	1	
D902 ⚠	MA4100M	DIODE	1	
D903-06	MA165	DIODE	4	
D907 ⚠	MA4100M	DIODE	1	
D911,12	MA165	DIODE	2	
D914	MA165	DIODE	1	
D917	MA165	DIODE	1	
F1 ⚠	XBA2C31TB0	FUSE	1	
IC401	AN7062N	IC	1	
IC501 ⚠	SVI3205B	IC	1	
IC502	RSN6000B	IC	1	
IC721 ⚠	AN78L05TA	IC	1	
IC761 ⚠	AN78L05TA	IC	1	
IC785	NJM4580DD	IC	1	
IC801,02	UPD4027BC	IC	2	
IC803	0N3131R	IC	1	
IC901	BA6138	IC	1	
IC902	M5218AP	IC	1	
JK1 ⚠	SJS9236	JACK,AC INLET	1	
JK401	SJF3068-7N	JACK,INPUT	1	
JK501	RJH4801M-2	JACK,SPEAKERS	1	
JK502	RJJ63TA01	JACK,HEADPHONES	1	
JK601	RJS1A7402-1	JACK,FAN MOTOR	1	
JK791	RJS1D0706	JACK,CONTROL	1	
JK801	RJJ33T01	JACK,CONTROL OUT	1	
L1 ⚠	RLQZ371	COIL	1	
L401,02	RLQA100JT-Y	COIL	2	
L403	BL02RN1R62T2	COIL	1	
L501-04	SLQY18G-10	COIL	4	
L791-97	ELEXT1R0KA9	COIL	7	
P1	RPQ0164	PAD	1	
P2	RPF0139	PROTECTION COVER	1	
P3	RPG4513	PACKING CASE	1	
P4	RPN1205	PAD	1	
P5	SPP730	PROTECTION COVER	1	
P6	RPH0032	MIRROR SHEET	1	(EB)
PCB1	REP2876A-M	MAIN PCB	1	(RTL)
PCB2	REP2877AA-S	BATTERY PCB	1	(E,EG) (RTL)
PCB2	REP2877BA-S	POWER SUPPLY PCB	1	(EB) (RTL)
PCB3 ⚠	REP2877AB-S	CONT ASSEM PCB	1	(E,EG) (RTL)
PCB3 ⚠	REP2877BB-S	CONT ASSEM PCB	1	(EB) (RTL)

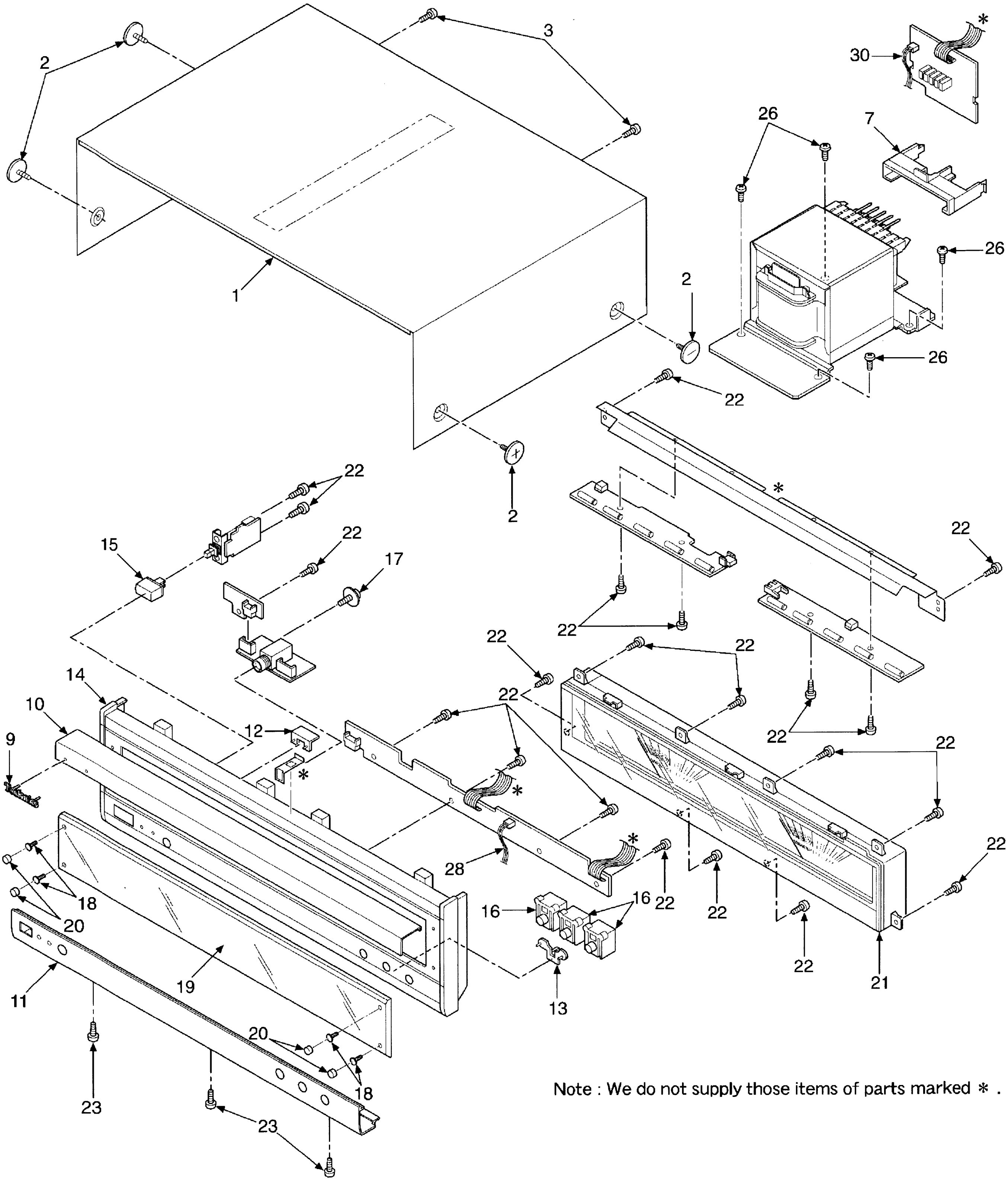
Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
PL901-10	XAMR131	LUMP	10	
Q401,02	2SA992F	TRANSISTOR	2	
Q451,52	2SC1845F	TRANSISTOR	2	
Q453,54	2SC3311AR	TRANSISTOR	2	
Q455,56	2SA1309AR	TRANSISTOR	2	
Q501-03	2SA992F	TRANSISTOR	3	
Q543	2SA1309AR	TRANSISTOR	1	
Q601,02	2SC3311AR	TRANSISTOR	2	
Q603	2SC3940AQSTA	TRANSISTOR	1	
Q604-06	2SC3311AR	TRANSISTOR	3	
Q611,12	2SC3311AR	TRANSISTOR	2	
Q701	2SC3311AR	TRANSISTOR	1	
Q771 ⚠	2SK330GRYTA	TRANSISTOR	1	
Q772 ⚠	2SJ105GRYTA	TRANSISTOR	1	
Q773 ⚠	2SC1845F	TRANSISTOR	1	
Q774 ⚠	2SA992F	TRANSISTOR	1	
Q781 ⚠	2SD2374PQAU	TRANSISTOR	1	
Q791 ⚠	2SK330GRYTA	TRANSISTOR	1	
Q792 ⚠	2SJ105GRYTA	TRANSISTOR	1	
Q793 ⚠	2SC3940AQSTA	TRANSISTOR	1	
Q794 ⚠	2SA1534AQRTA	TRANSISTOR	1	
Q801,02	UN4215	TRANSISTOR	2	
Q803,04	UN4111	TRANSISTOR	2	
Q806,07	UN4111	TRANSISTOR	2	
Q808	2SA1309AR	TRANSISTOR	1	
Q809	2SC3311AR	TRANSISTOR	1	
Q810	UN4111	TRANSISTOR	1	
Q811	2SA992F	TRANSISTOR	1	
Q822	UN4215	TRANSISTOR	1	
Q825	UN4111	TRANSISTOR	1	
Q906	2SC3311AR	TRANSISTOR	1	
Q907	2SA1309AR	TRANSISTOR	1	
R401,02	ERDS2FJ122	1/4W 1.2K	2	
R403,04	ERDS2FJ823	1/4W 82K	2	
R405,06	ERDS2FJ272	1/4W 2.7K	2	
R407,08	ERDS2FJ823	1/4W 82K	2	
R411,12	ERDS2FJ470	1/4W 47	2	
R437	ERDS2FJ473	1/4W 47K	1	
R457	ERDS2FJ183	1/4W 18K	1	
R459,60	ERDS2FJ101	1/4W 100	2	
R461-64	ERDS2FJ333	1/4W 33K	4	
R465-68	ERDS2FJ101	1/4W 100	4	
R469	ERDS2FJ103	1/4W 10K	1	
R470	ERDS2FJ102	1/4W 1K	1	
R471,72	ERDS2FJ561	1/4W 560	2	
R491,92	ERDS2FJ823	1/4W 82K	2	
R501,02	ERDS2FJ362	1/4W 3.6K	2	
R503,04	ERDS2FJ121	1/4W 120	2	
R505,06	ERDS2FJ392	1/4W 3.9K	2	
R507,08	ERDS2FJ121	1/4W 120	2	
R509,10	ERDS2FJ101	1/4W 100	2	
R513-16	ERDS2FJ100	1/4W 10	4	
R519,20	ERX1SJ3R3	1W 3.3	2	
R521,22 ⚠	ERDS1FJ100	1/2W 10	2	
R527	ERDS2FJ223	1/4W 22K	1	
R528	ERDS2FJ684	1/4W 680K	1	
R529	ERDS2FJ124	1/4W 120K	1	
R530 ⚠	ERDS1FJ472	1/2W 4.7K	1	
R531,32 ⚠	ERDS1FJ100	1/2W 10	2	
R533,34	ERDS2FJ103	1/4W 10K	2	
R535	ERDS2FJ562	1/4W 5.6K	1	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
R536	ERDS2FJ470	1/4W 47	1	
R537	ERDS2FJ101	1/4W 100	1	
R544	ERDS2FJ103	1/4W 10K	1	
R545	ERDS2FJ823	1/4W 82K	1	
R550,51	ERDS2FJ222	1/4W 2.2K	2	
R555-58	ERG1SJ681	1W 680	4	
R559	ERG1SJ152	1W 1.5K	1	
R560	ERG1SJ182	1W 1.8K	1	
R561,62	ERG1SJ151	1W 150	2	
R563,64	ERG1SJ181	1W 180	2	
R565-70	ERDS2FJ223	1/4W 22K	6	
R577,78	ERDS2FJ682	1/4W 6.8K	2	
R601-04	ERDS2FJ223	1/4W 22K	4	
R605	ERDS2FJ473	1/4W 47K	1	
R606	ERDS2FJ104	1/4W 100K	1	
R607	ERDS2FJ103	1/4W 10K	1	
R608	ERDS2FJ223	1/4W 22K	1	
R609	ERDS2FJ332	1/4W 3.3K	1	
R610	ERDS2TJ335T	1/4W 3.3M	1	
R611	ERDS2FJ473	1/4W 47K	1	
R612	ERDS2FJ153	1/4W 15K	1	
R613	ERDS2FJ473	1/4W 47K	1	
R614	ERDS2FJ683	1/4W 68K	1	
R615	ERDS2FJ103	1/4W 10K	1	
R616 ⚠	ERDS1FJ220	1/2W 22	1	
R617	ERDS2FJ222	1/4W 2.2K	1	
R618	ERDS2FJ103	1/4W 10K	1	
R621	ERDS2FJ223	1/4W 22K	1	
R622	ERDS2FJ100	1/4W 10	1	
R623	ERDS2FJ823	1/4W 82K	1	
R701 ⚠	ERDS2FJ100	1/4W 10	1	
R702	ERDS2FJ222	1/4W 2.2K	1	
R707,08	ERDS2FJ6R8	1/4W 6.8	2	
R721	ERDS2FJ221	1/4W 220	1	
R763	ERDS2FJ221	1/4W 220	1	
R771	ERDS2FJ470	1/4W 47	1	
R772	ERDS2FJ121	1/4W 120	1	
R773	ERDS2FJ332	1/4W 3.3K	1	
R774	ERDS2FJ103	1/4W 10K	1	
R775,76	ERDS2FJ105	1/4W 1M	2	
R781 ⚠	ERDS1FJ472	1/2W 4.7K	1	
R782,83 ⚠	ERDS1FJ560	1/2W 56	2	
R787,88	ERDS2FJ102	1/4W 1K	2	
R789,90	ERDS2FJ333	1/4W 33K	2	
R791,92	ERDS2FJ1R0	1/4W 1	2	
R793,94	ERDS2FJ103	1/4W 10K	2	
R795,96	ERDS2FJ105	1/4W 1M	2	
R801	ERDS2FJ221	1/4W 220	1	
R802	ERDS2FJ562	1/4W 5.6K	1	
R803,04	ERDS2FJ223	1/4W 22K	2	
R806	ERDS2FJ391	1/4W 390	1	
R807,08	ERDS2FJ223	1/4W 22K	2	
R809	ERDS2FJ823	1/4W 82K	1	
R810,11	ERDS2FJ223	1/4W 22K	2	
R812	ERDS2FJ391	1/4W 390	1	
R813-15	ERDS2FJ223	1/4W 22K	3	
R816	ERDS2FJ222	1/4W 2.2K	1	
R817	ERDS2FJ103	1/4W 10K	1	
R821	ERDS2FJ103	1/4W 10K	1	
R822	ERDS2FJ222	1/4W 2.2K	1	
R823	ERDS2FJ562	1/4W 5.6K	1	
R824	ERDS2FJ154	1/4W 150K	1	
R825	ERDS2FJ223	1/4W 22K	1	
R826	ERDS2FJ102	1/4W 1K	1	
R828,29	ERG1SJ182	1W 1.8K	2	
R830	ERDS2FJ472	1/4W 4.7K	1	
R831	ERDS2FJ683	1/4W 68K	1	
R854	ERDS2FJ391	1/4W 390	1	
R901,02 ⚠	ERDS1FJ472	1/2W 4.7K	2	
R903,04	ERDS2FJ271	1/4W 270	2	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
R905,06	ERDS2TJ155	1/4W 1.5M	2	
R907,08	ERDS2FJ682	1/4W 6.8K	2	
R909,10	ERDS2FJ103	1/4W 10K	2	
R911,12	ERDS2FJ821	1/4W 820	2	
R915	ERDS2FJ103	1/4W 10K	1	
R916	ERDS2FJ104	1/4W 100K	1	
R921,22	ERDS2FJ123	1/4W 12K	2	
R923,24	ERDS2FJ154	1/4W 150K	2	
R925,26	ERDS2FJ223	1/4W 22K	2	
R927,28	ERDS2FJ102	1/4W 1K	2	
R929,30	ERDS2FJ121	1/4W 120	2	
R931-36	ERG1SJ681	1W 680	6	
R947,48	ERDS2FJ103	1/4W 10K	2	
R949,50	ERDS2FJ223	1/4W 22K	2	
RL503,02 ⚠	RSY0013M-0	RELAY	2	

Ref. No.	Part No.	Part Name & Description	Pcs.	Remarks
RL503,04 ⚠	RSY0031-A	RELAY	2	
RL701 ⚠	RSY0019M-0	RELAY	1	
S801 ⚠	RSP2B023-A	SW,POWER	1	
S802-04	EVQ21405R	SW,PUSH	3	
T1 ⚠	RTP1P5B005	POWER TRANSFORMER	1	
T701 ⚠	RTP1J5B001	POWER TRANSFORMER	1	
TH901,02	ERTD2ZHL104T	THERMISTOR	2	
VR909,10	EVNDXAA00B23	VR,POWER METER ADJ.	2	

14 Cabinet Parts Location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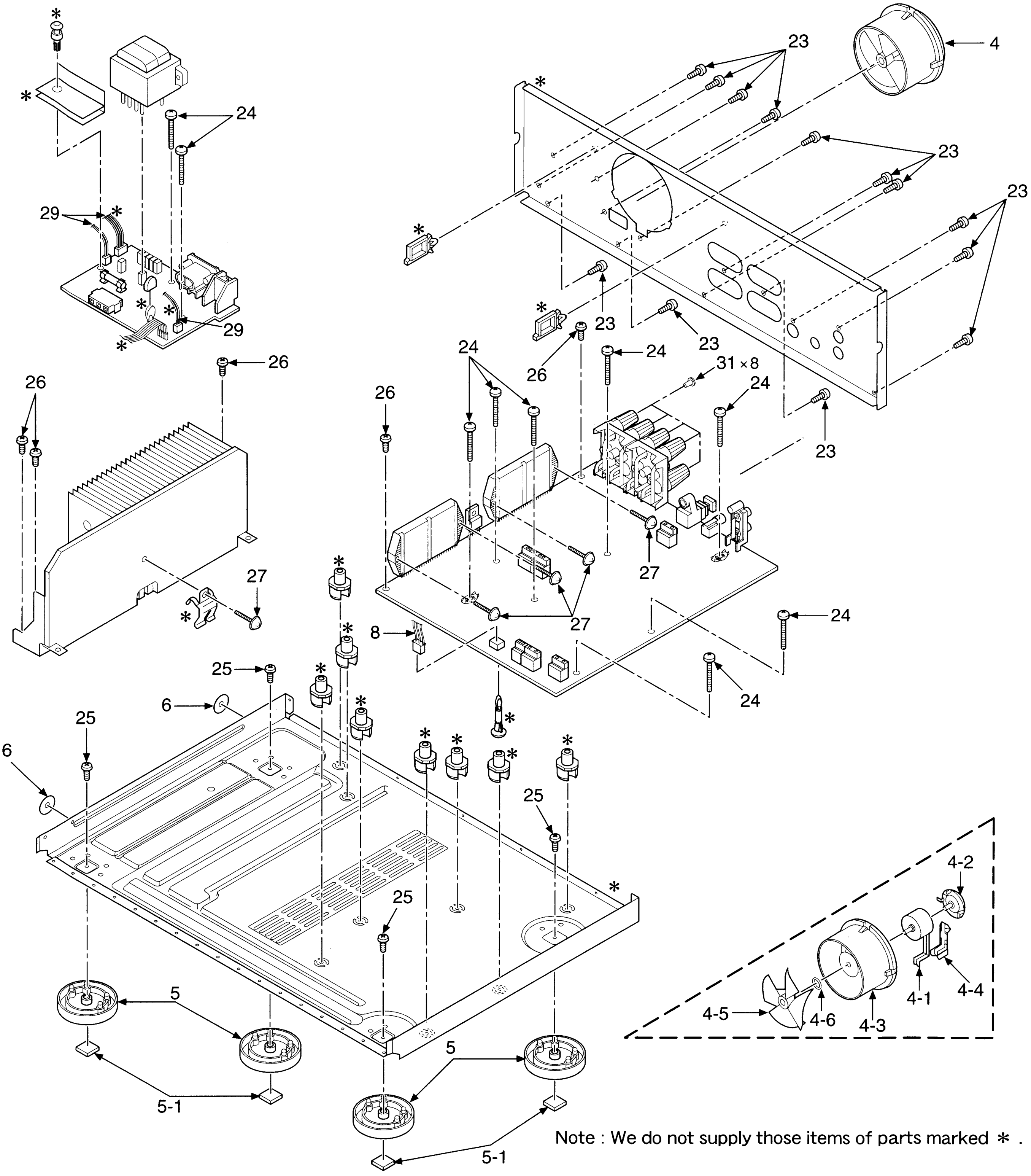
Note : We do not supply those items of parts marked ＊ .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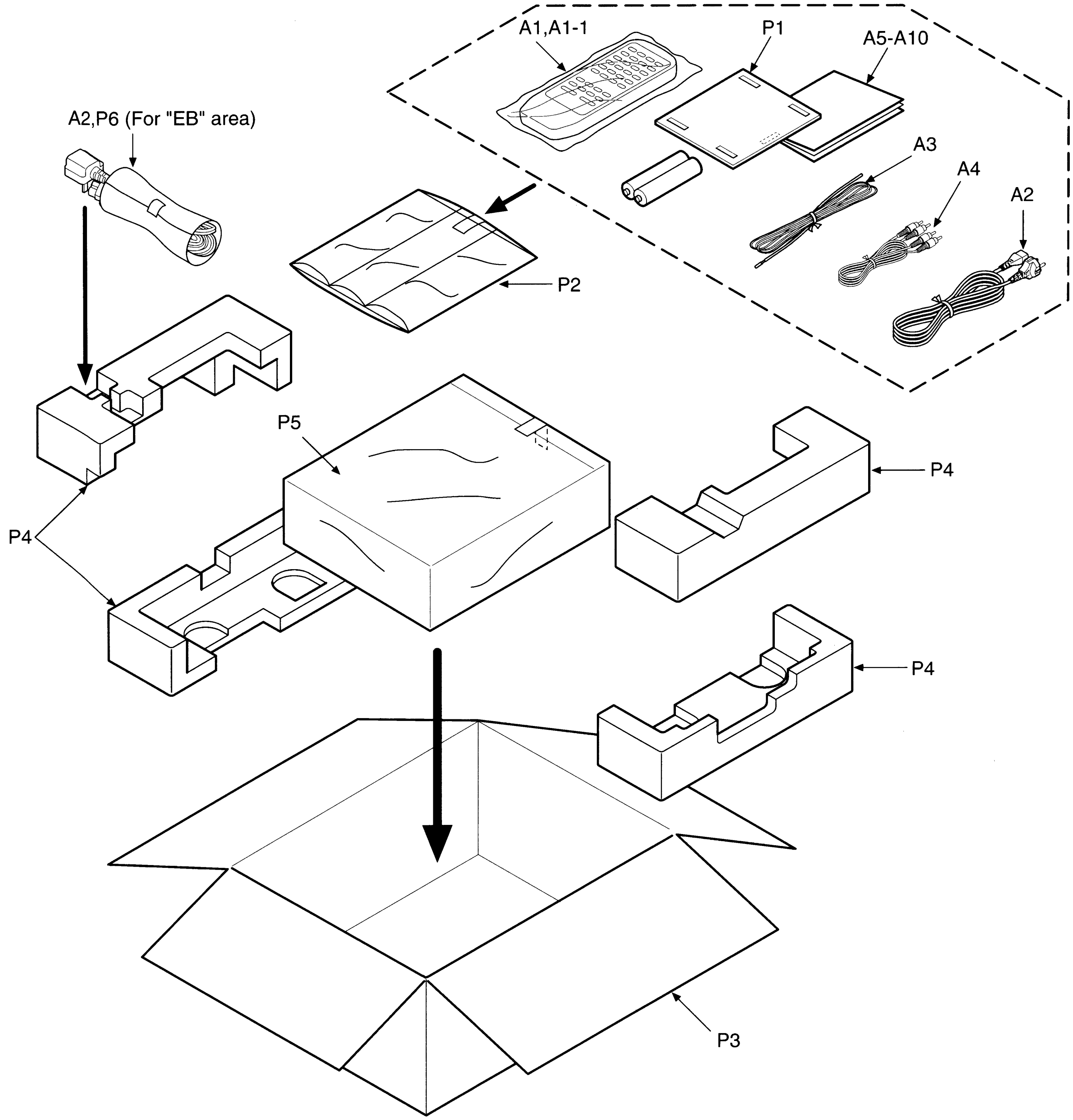
5-1

Note : We do not supply those items of parts marked ∗ .

15 Packaging


A1,A1-1
P1
A5-A10
A2,P6 (For "EB" area)
A3
A4
A2
P2
P5
P4
P4
P4
P4
P3